Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 20.10.95 Edition : ISO 4113 Test oil

Combination No. : 0 403 466 168

Injection pump

Pump designation : PES6MW100/120RS1238

EP type number : 0 413 406 237

Governor

Governer design. : RSV450...1000MW2A389

Governer no. : 0 420 085 269

Cust. part No. : 3929167

Customer-spec. information

: CDC Customer Motor : 6 CT-830 Power KW : 134.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar : **←** 1.5

: 1 680 750 014 Test lines

Outside diameter : 6.0 x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar $: \leftarrow 1.0$

Prestroke mm 2.80 Tolerance mm : + 0.05

test only : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300 : + 0.50

Tolerance Check

tolerance *NW : + - 0.75

Start of delivery blocking

*NW after s.o.d. : 7.50

1 Barrel no. :

BASIC SETTING

1000 Rated speed rpm

Rack travel in mm : 11.60 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 126.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : + 4.0	Check tolerance cm3/1000s. : 7.5
Spreed	
Tolerance cm3/1000 strokes : 4.0	CONTROL LEVER control lever
Check tolerance cm3/1000s. : 7.5	position degree : 99.0 tolerance degree : +- 4.0
Rated speed rpm : 450	RATED SPEED
Rack travel in mm: 6.50	rack travel mm : 10.60
Tolerance mm : + 0.30	Rated speed rpm : 1050
Del. quantity	Tolerance 1/min : + 5
cm3/1000 strokes : 28.0 +	
Tolerance	rack travel mm : 4.00
cm3/1000 strokes : +- 2.0 +- Check tolerance	Rated speed rpm : 1155 Tolerance 1/min : +- 15
cm3/1000s. : + 4.5	Tolerance 1/min : + 15
Spreed	rack travel mm : 0.85
Tolerance	Tolerance mm : + 0.55
cm3/1000 strokes : 3.5	Rated speed rpm : 1300
Check tolerance	
cm3/1000s. : 5.5	rack travel mm : 4.00 Rated speed rpm : 1165
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	control lever
+	
GUIDE SLEEVE POSITION	control lever position degree : 82.0 tolerance degree : + 4.0 Testing:
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450 rack travel mm : 6.50
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450 rack travel mm : 6.50
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450 rack travel mm : 6.50 Tolerance mm : + 0.10
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.75 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450 rack travel mm : 6.50 Tolerance mm : + 0.10 Rated speed rpm : 100
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450 rack travel mm : 6.50 Tolerance mm : + 0.10 Rated speed rpm : 100
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1000	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450 rack travel mm : 6.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 126.0	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450 rack travel mm : 6.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 11.60
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 126.0 Tolerance	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450 rack travel mm : 6.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 126.0 Tolerance cm3/1000 strokes : + 1.0	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450 rack travel mm : 6.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 11.60 Tolerance mm : + 0.05
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 126.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450 rack travel mm : 6.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 11.60 Tolerance mm : + 0.05 Rated speed rpm : 750
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 126.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450 rack travel mm : 6.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 11.60 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 750 rack travel mm : 12.40
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 3.75 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 126.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	control lever position degree : 82.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 450 rack travel mm : 6.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 11.60 Tolerance mm : + 0.05 Rated speed rpm : 750

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1000
rack travel mm : 12.40
Tolerance mm : + 0.10

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 11.40
Tolerance mm : + 0.05

Rated speed rpm : 500

Pressure hPa : 650 rack travel mm : 12.10 Tolerance mm : + 0.15

Pressure hPa : 550 rack travel mm : 11.70 Tolerance mm : +- 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1000 hPa 750 Rated speed rpm Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : \leftarrow 2.0 Check tolerance cm3/1000s. 5.0 : +-Spreed Tolerance cm3/1000 strokes : 6.0

Check tolerance cm3/1000s. : 9.0

Aneroid pressure

Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 118.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm: 10.60
Rated speed rpm: 1050
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : + 1.00
Del. quantity
cm3/1000 strokes : 170.0
Tolerance
cm3/1000 strokes : + 10.0
Check tolerance
cm3/1000s. : + 13.0

LOW IDLE

Rated speed rpm 450 rack travel mm : 6.50 Tolerance mm : + - 0.30Del. quantity cm3/1000 strokes : 28.0 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance 5.5 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 16.10.95 Edition Test oil : ISO 4113

Combination No. : 0 401 846 991

Injection pump

Pump designation : PE6P110A320RS3108-1

EP type number : 0 411 816 757

Governor

Governer design. : RQV250...1100PA920

: -10

: 0 421 814 106 Governer no.

Cust. part No. : 425823 PO2 RELEASED

Customer-spec. information

customer : VOLVO-TRUCK : THD 102 KB Motor Power KW

: 212.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Vibration damper

(RoBo diaphragm): 4.2

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 046

1.5 Inlet press. bar : Tolerance bar : +- 0.1

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

: 3.05 Prestroke mm : +- 0.65 Tolerance mm

: **←** 0.10 test only

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

: +- 0.30 Tolerance

Check

: + 0.75 tolerance *NW

Start of delivery mark

Barrel no.

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 14.30 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 191.0

	+ Tolerance mm : +- 0.25
Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 520 guide sleeve
Check tolerance cm3/1000s. : + 3.0	travel mm : 4.67 Tolerance mm : + 0.25
Spreed Tolerance cm3/1000 strokes : 4.0	Rated speed rpm : 1370 guide sleeve travel mm : 11.50 Tolerance mm : +- 0.50
Check tolerance cm3/1000s. : 7.5	<u> </u>
Rated speed rpm : 250	GUIDE SLEEVE POSITION Rated speed rpm : 1175
Rack travel in mm: 5.70	1 Rated Speed 1 pm . 1113
Tolerance mm : + 0.20	Rack travel in mm: 16.50
Del. quantity	+ Tolerance mm : +- 1.30
cm3/1000 strokes : 32.0	
Tolerance	
cm3/1000 strokes : + 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	T FOLE EVAN DELIVERY AT FOLE COAN STOP
cm3/1000s. : +- 4.5	Rated speed rpm : 700
Spreed	Aneroid pressure
Tolerance	hPa : 1200
cm3/1000 strokes : 3.0	Del. quantity
Check tolerance	cm3/1000 strokes : 191.0
cm3/1000s. : 6.0	Tolerance
. 5.5	cm3/1000 strokes : + 1.0
	1 Check tolerance
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ Check tolerance + cm3/1000s. : + 3.0 + Spreed
	+ cm3/1000s. : + 3.0 + Spreed + Tolerance
	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250	- cm3/1000s. : + 3.0 - Spreed - Tolerance - cm3/1000 strokes : 4.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25	- cm3/1000s. : + 3.0 - Spreed - Tolerance - cm3/1000 strokes : 4.0 - Check tolerance - cm3/1000s. : 7.5 - CONTROL LEVER
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19	- cm3/1000s. : + 3.0 - Spreed - Tolerance - cm3/1000 strokes : 4.0 - Check tolerance - cm3/1000s. : 7.5
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve travel mm : 7.81	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0 tolerance degree : + 4.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve travel mm : 7.81 Tolerance mm : + 0.25	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0 tolerance degree : + 4.0 control lever
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve travel mm : 7.81 Tolerance mm : + 0.25 Rated speed rpm : 1081	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0 tolerance degree : + 4.0 control lever position degree : 120.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve travel mm : 7.81 Tolerance mm : + 0.25 Rated speed rpm : 1081 guide sleeve	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0 tolerance degree : + 4.0 control lever
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve travel mm : 7.81 Tolerance mm : + 0.25 Rated speed rpm : 1081 guide sleeve travel mm : 6.83	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0 tolerance degree : + 4.0 control lever position degree : 120.0 tolerance degree : + 4.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve travel mm : 7.81 Tolerance mm : + 0.25 Rated speed rpm : 1081 guide sleeve	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0 tolerance degree : + 4.0 control lever position degree : 120.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve travel mm : 7.81 Tolerance mm : + 0.25 Rated speed rpm : 1081 guide sleeve travel mm : 6.83 Tolerance mm : + 0.25 Rated speed rpm : 387	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0 tolerance degree : + 4.0 control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve travel mm : 7.81 Tolerance mm : + 0.25 Rated speed rpm : 1081 guide sleeve travel mm : 6.83 Tolerance mm : + 0.25 Rated speed rpm : 387 guide sleeve	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0 tolerance degree : + 4.0 control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1135
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve travel mm : 7.81 Tolerance mm : + 0.25 Rated speed rpm : 1081 guide sleeve travel mm : 6.83 Tolerance mm : + 0.25 Rated speed rpm : 387 guide sleeve travel mm : 2.96	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0 tolerance degree : + 4.0 control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve travel mm : 7.81 Tolerance mm : + 0.25 Rated speed rpm : 1081 guide sleeve travel mm : 6.83 Tolerance mm : + 0.25 Rated speed rpm : 387 guide sleeve	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0 tolerance degree : + 4.0 control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1135 Tolerance 1/min : + 5
GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve travel mm : 7.81 Tolerance mm : + 0.25 Rated speed rpm : 1081 guide sleeve travel mm : 6.83 Tolerance mm : + 0.25 Rated speed rpm : 387 guide sleeve travel mm : 2.96 Tolerance mm : + 0.25 Rated speed rpm : 2.96 Tolerance mm : + 0.25	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0 tolerance degree : + 4.0 control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1135 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1240
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 250 guide sleeve travel mm : 1.19 Tolerance mm : + 0.25 Rated speed rpm : 1146 guide sleeve travel mm : 7.81 Tolerance mm : + 0.25 Rated speed rpm : 1081 guide sleeve travel mm : 6.83 Tolerance mm : + 0.25 Rated speed rpm : 387 guide sleeve travel mm : 2.96 Tolerance mm : + 0.25	cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 63.0 tolerance degree : + 4.0 control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1135 Tolerance 1/min : + 5 rack travel mm : 4.00

rack travel mm Tolerance mm Rated speed rpm	: 0.50 : +- 0.50 : 1350
LOW IDLE	
control lever position degree tolerance degree	: 66.0 : + 4.0
control lever position degree tolerance degree	: 11.0 : + 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 250 : 5.70 : + 0.10
Rated speed rpm	: 150
CRT mm min.	: > 6.70
Rated speed rpm	: 330
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 700 : 14.30 : ← 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 14.30 : +- 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 10.15 : + 0.15
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 960 : 3.80 : +- 0.15

Pressure hPa : 240 rack travel mm : 0.25 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure
hPa : Rated speed rpm : 700
Del. quantity
cm3/1000 strokes : 113.0
Tolerance
cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : + 4.0

BREAKAWAY

Rack travel in mm: 13.30
Rated speed rpm: 1135
Tolerance 1/min: +- 5

LOW IDLE

Rated speed rpm 250 rack travel mm 5.70 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 32.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s.4.5 : +-Spreed Tolerance 3.0 cm3/1000 strokes : Check tolerance cm3/1000s. 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 06.09.95 Test oil : ISO 4113

Combination No. : 0 401 876 312

Injection pump

Pump designation : PE6P110A320RS492 EP type number : 0 411 816 161

Governor

Governer design. : RSV200...1100P1A305

: -6

Governer no. : 0 421 833 472

Cust. part No. : 847845 PO5 v. 12/94

Customer-spec. information

Customer : VOLVO-PENTA
Motor : TD71APP
Power KW : 165.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Vibration

damper

(RoBo diaphragm): 4.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.05 Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 11.55 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 11

Tolerance cm3/1000 strokes : + 1.0	Check tolerance : 7.5
Check tolerance cm3/1000s. : + 3.0	CONTROL LEVER
Spreed Tolerance cm3/1000 strokes : 4.0	control lever position degree : 54.0
Check tolerance cm3/1000s. : 7.5	control lever position degree : 104.0
Rated speed rpm : 200	RATED SPEED
Rack travel in mm: 5.50 Tolerance mm: + 0.20 Del. quantity cm3/1000 strokes: 19.0	rack travel mm : 10.50 Rated speed rpm : 1115 Tolerance 1/min : + 5
Tolerance - cm3/1000 strokes : + 3.0 - Spread - Tolerance - cm3/1000 strokes - cm3/1000 s	rack travel mm : 4.00 Rated speed rpm : 1155 Tolerance 1/min : + 15
cm3/1000 strokes : 3.0 - Check tolerance - cm3/1000s. : 6.0 -	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1300
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION -	control lever position degree : 67.0
Rated speed rpm : 800	control lever position degree : 17.0
Rack travel in mm : 0.50 - Tolerance mm : + 0.20 -	Setting point w/out bumper spring
governor spring	Rated speed rpm : 200 rack travel mm : 5.00
	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP - Rated speed rpm : 700 -	Rated speed rpm : 200 rack travel mm : 5.50 Tolerance mm : + 0.10
Aneroid pressure hPa : Del. quantity	rack travel mm : 2.00 Rated speed rpm : 310
cm3/1000 strokes : 110.0 - Tolerance -	Tolerance 1/min : +- 30
cm3/1000 strokes : +- 1.0 Check tolerance 7.00000	Rated speed rpm : 100
cm3/1000s. : +- 3.0 Spreed Tolerance	- CRT mm min. : > 19.50
cm3/1000 strokes : 4.0	TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 11.55 Tolerance mm : + 0.05

BREAKAWAY

Rack travel in mm: 10.50
Rated speed rpm: 1115
Tolerance 1/min: + 5

LOW IDLE

200 Rated speed rpm 5.50 rack travel mm : Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : \leftarrow 3.0 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.10.95 Test oil : ISO 4113

Combination No. : 0 401 876 322

Injection pump

Pump designation : PE6P110A320RS497 EP type number : D 411 816 165

Governor

Governer design. : RSV200...1200P1A374

: -2

Governer no. : 0 421 833 205

Cust. part No. : 848719-P06

Customer—spec. information Customer : VOLVO Motor : TID 71A

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Vibration damper

(RoBo diaphragm) : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.05
Tolerance mm : + 0.05

test only : \div 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 12.75
Tolerance mm: + 0.05

Del. quantity cm3/1000 strokes : 139.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s.	: +- 4.0
Spreed Tolerance cm3/1000 strokes	: 4.0
Check tolerance cm3/1000s.	: 7.5
Rated speed rpm	: 200
Rack travel in mm Tolerance mm Del. quantity	5.30 : + 0.20
cm3/1000 strokes Tolerance	: 19.0
cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000s. Spreed	: +- 4.5
Tolerance cm3/1000 strokes	: 3,0
Check tolerance cm3/1000s.	: 6.0
(B) SETTING OF IN	JECTION PUMP
	UECTION PUMP
WITH GOVERNOR	
WITH GOVERNOR GUIDE SLEEVE POSI	TION
WITH GOVERNOR GUIDE SLEEVE POSI Rated speed rpm Rack travel in mm	TION : 800
WITH GOVERNOR GUIDE SLEEVE POSI Rated speed rpm Rack travel in mm Tolerance mm	TION : 800 : 0.50
WITH GOVERNOR GUIDE SLEEVE POSI Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm	TION : 800 : 0.50 : + 0.20
WITH GOVERNOR GUIDE SLEEVE POSI Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure nPa	TION : 800 : 0.50 : + 0.20 Y AT FULL LOAD STOP
WITH GOVERNOR GUIDE SLEEVE POSI Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure nPa Del. quantity cm3/1000 strokes	TION : 800 : 0.50 : + 0.20 Y AT FULL LOAD STOP : 700
WITH GOVERNOR GUIDE SLEEVE POSI Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure nPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	TION : 800 : 0.50 : + 0.20 Y AT FULL LOAD STOP : 700 : 1200
WITH GOVERNOR GUIDE SLEEVE POSI Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure nPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	TION : 800 : 0.50 : + 0.20 Y AT FULL LOAD STOP : 700 : 1200 : 139.0
WITH GOVERNOR GUIDE SLEEVE POSI Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure nPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	TION : 800 : 0.50 : + 0.20 Y AT FULL LOAD STOP : 700 : 1200 : 139.0 : + 1.0
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE POSI Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes	TION : 800 : 0.50 : + 0.20 Y AT FULL LOAD STOP : 700 : 1200 : 139.0 : + 1.0 : + 4.0

control lever position degree tolerance degree	: 57.0 : ← 4.0
control lever position degree tolerance degree	: 107.0 : + 4.0
RATED SPEED	
rack travel mm Rated speed rpm Tolerance 1/min	: 11.70 : 1215 : +- 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1275 : ← 15
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : +- 0.55 : 1400
LOW IDLE	
control lever position degree tolerance degree	: 67.0 : + 4.0
control lever position degree tolerance degree	: 17.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm rack travel mm	: 200 : 4.80
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 200 : 5.30 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 310 : + 30
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 700 : 12.75 : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

500 Rated speed rpm : 1200 Pressure hPa rack travel mm 12.75 : +- 0.05 Tolerance mm

MEASUREMENT

Pressure hPa 500 Rated speed rpm 9.70 rack travel mm Tolerance mm : + 0.10

500 Rated speed rpm

380 Pressure hPa : 10.10 rack travel mm : + 0.10Tolerance mm

900 Pressure hPa 12.45 rack travel mm : + 0.05 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 700 Rated speed rpm Del. quantity

cm3/1000 strokes : 83.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s.

BREAKAWAY

11.70 Rack travel in mm: Rated speed rpm : Tolerance 1/min : +-

STARTING FUEL DELIVERY

100 Rated speed rpm : 20.50 rack travel mm : : +- 0.50 Tolerance mm

Del. quantity

cm3/1000 strokes : 200.0 Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance cm3/1000s.

: +- 19.0

LOW IDLE

Rated speed rpm 200 5.30 rack travel mm : +- 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : **←** 4.5

Spreed Tolerance

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 16.10.95 Test oil : ISO 4113

Combination No. : 0 401 876 761

Injection pump

Pump designation : PE6P120A320RS3206 EP type number : 0 411 826 773

Governor

Governer design. : RSV250...900P4A374

: –6

Governer no. : 0 421 833 283

Cust. part No. : 849623 PO3 v. 6/95

Customer-spec. information

Customer : VOLVO—PENTA
Motor : TAMD122 A
Power KW : 280.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Vibration

damper

(RoBo diaphragm): 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 077

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.55
Tolerance mm : + 0.05

test only $: \leftarrow 0.10$

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : '

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 11.75 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 276.5

	1
Tolerance	Ī
cm3/1000 strokes : + 1.0	I
CHD/ 100% Set ORCS	CONTROL LEVER
Check tolerance	- CONTINUE CEREIN
cm3/1000s. : + 4.0	+ control lever
	+ position degree : 54.0
Spreed	+ tolerance degree : + 4.0
Tolerance	+
cm3/1000 strokes : 5.0	+ control lever
	+ position degree : 104.0
Check tolerance	+ tolerance degree : + 4.0
cm3/1000s. : 9.0	†
250	+ RATED SPEED
Rated speed rpm : 250	†
Durit day 1 2 m m	+ rack travel mm : 10.70
Rack travel in mm: 5.10	Rated speed rpm : 930
Tolerance mm : + 0.20	Tolerance 1/min : + 5
Del. quantity cm3/1000 strokes : 20.0	rack travel mm : 4.00
Tolerance	Rated speed rpm : 1000
cm3/1000 strokes : + 3.0	Tolerance 1/min : + 15
Check tolerance	
cm3/1000s. : +- 6.0	rack travel mm : 0.85
Spreed	+ Tolerance mm : + 0.55
Tolerance	+ Rated speed rpm : 1130
cm3/1000 strokes : 5.0	
Check tolerance	+ rack travel mm : 4.00
cm3/1000s. : 7.0	+ Rated speed rpm : 1010
	+
	+
(B) SETTING OF INJECTION PUMP	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
	LOW IDLE
	+
WITH GOVERNOR	control lever
	control lever position degree : 72.0
GUIDE SLEEVE POSITION	- control lever
WITH GOVERNOR	control lever position degree : 72.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 800	control lever position degree : 72.0 tolerance degree : + 4.0 control lever
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0
GUIDE SLEEVE POSITION Rated speed rpm : 800	control lever position degree : 72.0 tolerance degree : + 4.0 control lever
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 4.60
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1200	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1200 Del. quantity	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 4.60 Testing:
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 276.5	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 4.60 Testing: Rated speed rpm : 250
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 276.5 Tolerance	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 4.60 Testing: Rated speed rpm : 250 rack travel mm : 5.10
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 276.5 Tolerance cm3/1000 strokes : + 1.0	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 4.60 Testing: Rated speed rpm : 250
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 276.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 4.60 Testing: Rated speed rpm : 250 rack travel mm : 5.10 Tolerance mm : + 0.10
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 276.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 4.60 Testing: Rated speed rpm : 250 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 276.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 4.60 Testing: Rated speed rpm : 250 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 2.00 Rated speed rpm : 410
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 276.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 4.60 Testing: Rated speed rpm : 250 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 276.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 4.60 Testing: Rated speed rpm : 250 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 2.00 Rated speed rpm : 410
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 276.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance	control lever position degree : 72.0 tolerance degree : + 4.0 control lever position degree : 22.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 4.60 Testing: Rated speed rpm : 250 rack travel mm : 5.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 2.00 Rated speed rpm : 410

Rated speed rpm	:	700
rack travel mm	:	11.75
Tolerance mm	; +	- 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	700
Pressure hPa	:	1200
rack travel mm	:	11.75
Tolerance mm	•	+- 0.05

MEASUREMENT

Pressure hPa	:	-
Rated speed rpm	:	700
rack travel mm	:	8.70
Tolerance mm	: +-	0.10

Rated	speed	rom	:	700
Rated	speed	rpm	:	70

Pressure hPa	:	770
rack travel mm	:	11.40
Tolerance mm	: +	- 0.20

Pressure hPa	:	240
rack travel mm	:	8.95
Tolerance mm	: +	- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa	:	~
Rated speed rpm	:	700
Del quantity		

Del. quantity cm3/1000 strokes : 178.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : \leftarrow 4.0

BREAKAWAY

Rack travel in mm	:		10.70
Rated speed rpm	:		930
Tolerance 1/min	:	+-	5

STARTING FUEL DELIVERY

Rated speed rpm	:	100
rack travel mm	:	8.70
Tolerance mm	: +-	0.10

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm	: 250 : 5.10 : + 0.20
Del. quantity cm3/1000 strokes Tolerance	: 20.0
cm3/1000 strokes	: + 3.0
Check tolerance cm3/1000S. Spreed Tolerance	: + 6.0
cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 7.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 16.10.95 Test oil : ISO 4113

Combination No. : 0 401 876 777

Injection pump

Pump designation : PE6P12OA32ORS3261 EP type number : 0 411 826 796

Governor

Governer design. : RSV250...1100P0A374

: -11

Governer no. : 0 421 833 346

Cust. part No. : 864451 PO4 v. 6/95

Customer—spec. information
Customer : PENTA

Motor : TAMD 102 A

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Vibration damper

(RoBo diaphragm): 4.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 077

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 067

Outside diameter : 6.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0
Tolerance bar : + 1.0

Prestroke mm : 3.45
Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : +- 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 12.15
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 260.0

	+ Tolerance
Tolerance	+ cm3/1000 strokes : 5.0
cm3/1000 strokes : +- 1.0	+ Check tolerance
	+ cm3/1000s. : 9.0
Check tolerance	-
cm3/1000s. : +- 4.0	1
Spreed	+ CONTROL LEVER
Tolerance	1
cm3/1000 strokes : 5.0	+ control lever
	position degree : 44.0
Check tolerance	tolerance degree : + 4.0
cm3/1000s. : 9.0	+
	+ control lever
Rated speed rpm : 250	position degree : 94.0
	+ tolerance degree : + 4.0
Rack travel in mm: 6.50	+
Tolerance mm : + 0.20	+ RATED SPEED
Del. quantity	}
cm3/1000 strokes : 23.0	+ rack travel mm : 11.10
Tolerance	+ Rated speed rpm : 1145
$cm3/1000$ strokes : \leftarrow 3.0	+ Tolerance 1/min : + 5
Check tolerance	+
cm3/1000s. : +- 6.0	+ rack travel mm : 4.00
Spreed	+ Rated speed rpm : 1210
Tolerance	+ Tolerance 1/min : + 15
cm3/1000 strokes : 5.0	+
Check tolerance	+ rack travel mm : 0.85
cm3/1000s. : 7.0	+ Tolerance mm : + 0.55
	1 Dated chood nom + 1450
	+ Rated speed rpm : 1350
(D) OFFITAIO OF TALEGITAN DUMP	+
(B) SETTING OF INJECTION PUMP	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+
	rack travel mm : 4.00
	rack travel mm : 4.00
WITH GOVERNOR	rack travel mm : 4.00 Rated speed rpm : 1220
	rack travel mm : 4.00
WITH GOVERNOR GUIDE SLEEVE POSITION	rack travel mm : 4.00 Rated speed rpm : 1220
WITH GOVERNOR GUIDE SLEEVE POSITION	rack travel mm : 4.00 Rated speed rpm : 1220
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0
GUIDE SLEEVE POSITION Rated speed rpm : 800	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : 4.0
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : +- 4.0 control lever
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : +- 4.0 control lever
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : +- 4.0 control lever position degree : 19.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 250
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : +- 4.0 control lever position degree : 19.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 6.00
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1500	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250
WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1500 Del. quantity	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 6.00 Testing:
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 260.0	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 6.00 Testing: Rated speed rpm : 250
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 260.0 Tolerance	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 6.00 Testing: Rated speed rpm : 250 rack travel mm : 6.50
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 260.0 Tolerance cm3/1000 strokes : +- 1.0	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 6.00 Testing: Rated speed rpm : 250
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 260.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 6.00 Testing: Rated speed rpm : 250 rack travel mm : 6.50
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 260.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	rack travel mm : 4.00 Rated speed rpm : 1220 LOW IDLE control lever position degree : 69.0 tolerance degree : + 4.0 control lever position degree : 19.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 rack travel mm : 6.00 Testing: Rated speed rpm : 250 rack travel mm : 6.50 Tolerance mm : + 0.10

Tolerance 1/min : +-20 TORQUE CONTROL Rated speed rpm 700 12.15 rack travel mm Tolerance mm : +- 0.05 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rom 500 Pressure hPa 1500 12.15 rack travel mm : + - 0.05Tolerance mm **MEASUREMENT** Pressure hPa 500 Rated speed rpm 8.10 rack travel mm Tolerance mm : + 0.10Rated speed rpm 500 Pressure hPa 1030 rack travel mm 3.60 : + 0.10Tolerance mm Pressure hPa 140 rack travel mm 0.25 Tolerance mm : + - 0.05FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa Rated speed rpm 700 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes 1.0 Check tolerance cm3/1000s. 4.0 **BREAKAWAY**

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.00 Tolerance mm : +- 1.00

LOW IDLE

Rated speed rpm 250 : 6.50 rack travel mm : +- 0.20 Tolerance mm Del. quantity 23.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. 7.0 :

End of test specification sheet

Rack towel in mm:

Tolerance 1/min

Rated speed rpm :

11.10

1145

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... : 30,10,95 Edition : ISO 4113 Test oil Combination No. : 0 401 876 803 Injection pump Pump designation : PE6P110A320RS3266 EP type number : 0 411 816 777 Governor Governer design. : RSV350...1250POA578 : 0 421 833 434 Governer no. Cust. part No. : 866200-P03 v. 4/94 Customer-spec. information Customer : PENTA : TWD 630ME Motor TEST BENCH REQUIREMENTS Inlet line : 3.1 Vibration damper (RoBo diaphragm) : 4.2 Test oil inlet temp. °C Tolerance *C : + 2.0Overflow valve : 2 417 413 046 Inlet press. bar : Tolerance bar : + 0.1 Test nozzle holde : 1 688 901 101 assembly

208.5

Outside diameter : 6.0 x inside diameter: 2.0 x Length mm : 600 REMARKS (A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____ BEGINNING OF DELIVERY Test pressure bar : Tolerance bar : + 1.0 Prestroke mm : 2.45
Tolerance mm : + 0.05 test only : **←** 0.10 Rack travel in mm: 10.50 : +- 1.50 Tolerance mm : 1-5- 3- 6- 2-Firing order Phasing : 0-60-120-180-240 Tolerance : **←** 0.30 Check tolerance *NW : + 0.75 BASIC SETTING Rated speed rpm : 700 Rack travel in mm : 12.00 Tolerance mm : + 0.05 Tolerance mm Del. quantity cm3/1000 strokes : 133.0 Tolerance cm3/1000 strokes : +- 1.0

Test lines : 1 680 750 008

Opening pressure

Tolerance bar : + 1.5

: +- 3.0
: 5.0
: 9.0
NJECTION PUMP
ITION
: 800
0.50 : +- 0.20
: 2.50
RY AT FULL LOAD STOP
: 700
: 1200
: 1200 : 133.0
: 133.0
: 133.0 : +- 1.0
: 133.0 : + 1.0 : + 3.0
: 133.0 : + 1.0 : + 3.0 : 5.0
: 133.0 : + 1.0 : + 3.0 : 5.0
: 133.0 : + 1.0 : + 3.0 : 5.0 : 9.0

rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Rated speed rpm Tolerance 1/min	: 1305
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : +- 0.55 : 1340
LOW IDLE	
control lever position degree tolerance degree	: 68.0 : +- 4.0
control lever position degree tolerance degree	: 18.0 : ← 4.0
Setting point w/o	ut bumper spring
Rated speed rpm rack travel mm	: 350 : 5.60
Testing:	
rack travel mm Rated speed rpm Tolerance 1/min	: 410
SET IDLE AUXILIAR	Y SPRING
rack travel mm	: 2.00
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 12.00 : + 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 9.60 : + 0.20

Rated speed rpm : 500 Pressure hPa 1.90 rack travel mm : +- 0.10 Tolerance mm 230 Pressure hPa rack travel mm 0.20 : +- 0.05 Tolerance mm FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 700 Rated speed rpm : Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 BREAKAWAY Rack travel in mm : 11.00 Rated speed rpm : 1270 Tolerance 1/min : +-STARTING FUEL DELIVERY Rated speed rpm : 100

rack travel mm : 20.50
Tolerance mm : + 0.50
Del. quantity
cm3/1000 strokes : 190.0
Tolerance
cm3/1000 strokes : + 10.0
Check tolerance
cm3/1000s. : + 14.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 25.10.95 Edition Test oil : ISO 4113

Combination No. : 0 402 044 700

Injection pump

Pump designation : PES4P110A320RS3350

EP type number : 0 412 014 700

Governor

Governer design. : RQV350...1400PA1221K

Governer no. : 0 421 815 472

Cust. part No. : 16700-08703 / M

: -2004

Customer-spec. information

Customer : NMI

: B4.40 EURO II Motor

Power KW : 101.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar 208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm Tolerance mm : **←** 0.05

test only : \leftarrow 0.10

Rack travel in mm: 20.50 Tolerance mm : \leftarrow 0.50

Firing order : 4-2-1-3

: 0-90-180-270 Phasing Phasing Tolerance

: **←** 0.30

Check

tolerance °NW : **←** 0.50

Start of delivery mark

*NW after s.o.d. : 180.00

Barrel no. : 4

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 15.40 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 178.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s.	: +- 3.0
Spreed Tolerance cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 9.0
Rated speed rpm	: 350
Rack travel in mn Tolerance mm Del. quantity cm3/1000 strokes	: +- 0.30
Tolerance	
cm3/1000 strokes Check tolerance	
cm3/1000s. Spreed	: +- 5.0
Tolerance cm3/1000 strokes	: 6.0
Check tolerance	
cm3/1000s.	: 10.0
(B) SETTING OF IN WITH GOVERNOR	INTELLIGIE LOUIS
GUIDE SLEEVE TRAV	
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm	: 350 : 1.46
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve	: 350 : 1.46 : + 0.20
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 350 : 1.46 : +- 0.20 : 1417 : 9.99
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 350 : 1.46 : ← 0.20 : 1417 : 9.99 : ← 0.15 : 994 : 6.77 : ← 0.25
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 350 : 1.46 : + 0.20 : 1417 : 9.99 : + 0.15 : 994 : 6.77 : + 0.25 : 610 : 3.96 : + 0.25

Rated speed rpm	: 1515
Rack travel in mm Tolerance mm	: 14.50 : + 1.30
FULL LOAD DELIVERY	Y AT FULL LOAD STOP
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance	
cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: +- 3.0
cm3/1000 strokes Check tolerance cm3/1000s.	: 5.0 : 9.0
CONTROL LEVER	
control lever position degree tolerance degree	: 65.0 : + 4.0
control lever position degree tolerance degree	: 122.0 : + 4.0
RATED SPEED	
rack travel mm Rated speed rpm Tolerance 1/min	: 14.40 : 1410 : + 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1585 : + 15
rack travel mm Tolerance mm Rated speed rpm	: 0.50 : ← 0.50 : 1640
LOW IDLE	
control lever position degree tolerance degree	: 82.0 : + 4.0

GUIDE SLEEVE POSITION

control lever position degree tolerance degree		† † †	Pressure hPa rack travel mm Tolerance mm	: 520 : 13.25 : + 0.05
Testing:		Ī	START CUT-OUT	
Rated speed rpm rack travel mm Tolerance mm		<u> </u>	Rated speed rpm Check speed 1/min	: > 270 : > 290
Rated speed rpm	: 250	+		2,0
CRT mm min.	: > 10.80	Ī	FUEL DELIVERY CHA	RACTERISTICS
Rated speed rpm	: 500		Aneroid pressure hPa Rated speed rpm	: 1500 : 780
TORQUE CONTROL		I	Del. quantity cm3/1000 strokes	
Rated speed rpm rack travel mm Tolerance mm	: 15.40		Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
Rated speed rpm rack travel mm Tolerance mm	: 780 : 13.70 : + 0.15	+++++++++++++++++++++++++++++++++++++++	Spreed Tolerance cm3/1000 strokes Check tolerance	
Rated speed rpm rack travel mm Tolerance mm		† + +	cm3/1000S. Aneroid pressure	: 12.0
Rated speed rpm rack travel mm Tolerance mm	: 1250	+++++++++++++++++++++++++++++++++++++++	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 165.0
ANEROID/ALTITUDE COMPENSATOR TEST			cm3/1000 strokes Check tolerance cm3/1000s.	: + 3.0 : + 6.0
SETTING		<u> </u>	Aneroid pressure hPa Rated speed rpm	: - : 500
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1300 : 1500 : 15.40 : +- 0.10	+++++++++++++++++++++++++++++++++++++++	Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	
MEASUREMENT		Ī	cm3/1000s.	: +- 4.0
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 1300 : 12.75 : + 0.10	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	BREAKAWAY Rack travel in mm	• 14 40
Rated speed rpm	: 1300	$oxed{1}$	Rated speed rpm Tolerance 1/min	
Pressure hPa rack travel mm Tolerance mm	: 940 : 14.45 : + 0.10	+	,300,4700 170011	

STARTING FUEL DELIVERY

100 Rated speed rpm

Del. quantity

cm3/1000 strokes : 220.0

Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance cm3/1000s. : + 19.0

LOW IDLE

350 Rated speed rpm 9.50 rack travel mm Tolerance mm 0.30 Del. quantity cm3/1000 strokes : 31.0 Tolerance cm3/1000 strokes : +-2.5 Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 27.10.95 Test oil : ISO 4113

Combination No. : 0 402 076 758

Injection pump

Pump designation : PES6P120A720RS3322 EP type number : 0 412 026 764

Governor

Governer design. : RSV650...1250P8A566 Governer no. : 0 421 833 415

doverner no. 421 655 415

Cust. part No. :

Customer-spec. information

Customer : FNH-GEOTECH

Power KW : 164.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 2.5

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05

test only : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance $^{\circ}NW$: + 0.50

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 10.05

Tolerance mm : \leftarrow 0.05

Dei. quantity

cm3/1000 strokes : 131.0

Tolerance

cm3/1000 strokes: +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance cm3/1000 strokes	: 5.0	‡	RATED SPEED	
Check tolerance cm3/1000s.	: 9.0	1	Rated speed rpm	: 1330
Del. quantity cm3/1000 strokes Tolerance		+	Rated speed rpm rack travel mm	
cm3/1000 strokes Check tolerance	: +- 3.0	<u>†</u>	Rated speed rpm	: 1325
cm3/1000s. Spreed Tolerance	: + 6.0	+	Tolerance 1/min rack travel mm	: +- 5
cm3/1000 strokes Check tolerance		+	rack travel mm	: 0.85 : + 0.55
cm3/1000s.		Ŧ	Tolerance mm Rated speed rpm	
(B) SETTING OF IN	NECTION PUMP	† 	Rated speed rpm rack travel mm	
		† † †	Rated speed rpm Tolerance 1/min rack travel mm	: ← 5
GUIDE SLEEVE POSI	TION	‡	rack travel mm	: 0.85
Rated speed rpm	: 800	1	Tolerance mm	: +- 0.55
Rack travel in mm Tolerance mm		Ī	Rated speed rpm rack travel mm	: 1295 : 9.05
governor spring pre-tension click setting x	: 1.75	++++	Rated speed rpm Tolerance 1/min rack travel mm	: +- 5
FULL LOAD DELIVER	Y AT FULL LOAD STOP	1	rack travel mm Tolerance mm	: 0.85 : + 0.55
Rated speed rpm Aneroid pressure		+	Rated speed rpm rack travel mm	
hPa Del. quantity	: 1000	‡	Rated speed rpm	: 1328
cm3/1000 strokes Tolerance	: 131.0	1	Tolerance 1/min rack travel mm	: +- 5 : 4.00
cm3/1000 strokes	: + 1.0	+		
Check tolerance cm3/1000s. Spreed	: +- 4.0	‡	rack travel mm Tolerance mm	: 0.85 : + 0.55
Tolerance cm3/1000 strokes	: 5.0	+	Rated speed rpm rack travel mm	: 1297 : 9.05
Check tolerance cm3/1000s.	: 9.0	+++++++++++++++++++++++++++++++++++++++	Rated speed rpm Tolerance 1/min rack travel mm	
CONTROL LEVER		Ŧ	rack travel mm Tolerance mm	: 0.85 : + 0.55
control lever position degree tolerance degree	: 112.0 : ← 4.0	‡	Rated speed rpm rack travel mm	

Rated speed rpm	: 1330
Tolerance 1/min	: +- 5
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: +- 0.55
LOW IDLE	
control lever position degree tolerance degree	: 85.0 : ← 4.0
Setting point w/c	out bumper spring
Rated speed rpm	: 650
rack travel mm	: 4.30
Testing:	
Rated speed rpm	: 650
rack travel mm	: 4.80
Tolerance mm	: ← 0.10
rack travel mm	: 2.00
Rated speed rpm	: 770
Tolerance 1/min	: +- 50
TORQUE CONTROL	
Rated speed rpm	: 1250
rack travel mm	: 10.05
Tolerance mm	: +- 0.05
Rated speed rpm	: 900
rack travel mm	: 10.60
Tolerance mm	: + 0.10
Rated speed rpm	: 1160
rack travel mm	: 10.35
Tolerance mm	: + 0.10
Rated speed rpm	: 1250
rack travel mm	: 9.55
Tolerance mm	: + 0.05
Rated speed rpm	: 700
rack travel mm	: 10.60
Tolerance mm	: + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	

Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1000 : 10.60 : +- 0.10
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 7.60 : + 0.10
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 560 : 9.80 : +- 0.05
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1000 : 900 : 144.5 : + 3.0
cm3/1000s.	: +- 6.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: - : 500 : 83.0 : + 1.0 : + 4.0
STARTING FUEL DEL	IVERY
Del. quantity cm3/1000 strokes	: 215.0

Del. quantity cm3/1000 strokes : 215.0 Tolerance cm3/1000 strokes : +- 15.0 Check tolerance cm3/1000s. : +- 19.0

LOW IDLE

Del. quantity
cm3/1000 strokes : 19.0
Tolerance
cm3/1000 strokes : + 3.0
Check tolerance
cm3/1000s. : + 6.0
Spreed
Tolerance
cm3/1000 strokes : 8.0
Check tolerance
cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 31.10.95 Edition Test oil : ISO 4113

Combination No. : 0 402 646 632

Injection pump

Pump designation : PE6P12OA32ORS7233

: -11

EF type number : 0 412 626 919

Governor

Governer design. : RQV300...1300PA1094K

Governer no. : 0 421 815 364

Cust. part No. : 866560 PO3 v. 4/95

Customer-spec. information Customer : PENTA : TAMD 72 A Motor Power KW : 316.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Vibration damper

(RoBo diaphragm): 4.2

Test oil inlet

temp. °C Tolerance *C 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 1.5 : +- 0.1 Tolerance bar

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 3.35 : + 0.05Tolerance mm

test only : + 0.10

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.30Check

: ← 0.75 tolerance 'NW

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.85 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes	: 250.0	- - Rated speed rpm : 1500
Tolerance cm3/1000 strokes	: + 1.0	Rack travel in mm : 9.00 Tolerance mm : +- 3.00
Check tolerance cm3/1000s.	: + 4.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Spreed Tolerance cm3/1000 strokes	: 8.0	Rated speed rpm : 1300 Aneroid pressure hPa : 2400 Del. quantity
Check tolerance cm3/1000s.	: 11.0	- cm3/1000 strokes : 250.0 - Tolerance - cm3/1000 strokes : + 1.0
(B) SETTING OF IN	NJECTION PUMP	Check tolerance cm3/1000s.:+- 4.0 Spreed Tolerance cm3/1000 strokes: 8.0
GUIDE SLEEVE TRAV	VEL	Check tolerance
Rated speed rpm guide sleeve	: 300	- cm3/1000s. : 11.0
travel mm Tolerance mm	: 1.65 : + 0.25	CONTROL LEVER
Rated speed rpm guide sleeve travel mm	: 1345 : 10.25	control lever position degree : 66.0 tolerance degree : + 4.0
Tolerance mm	: + 0.25	control lever
Rated speed rpm guide sleeve	+	position degree : 120.0 tolerance degree : + 4.0
travel mm Tolerance mm	: 6.99 : + 0.25	RATED SPEED
Rated speed rpm guide sleeve travel mm	1	rack travel mm : 12.80 Rated speed rpm : 1340 Tolerance 1/min : + 5
Tolerance mm	: + 0.25	
Rated speed rpm guide sleeve	: 437	rack travel mm : 4.00 Rated speed rpm : 1495 Tolerance 1/min : +- 15
guide sleeve travel mm Tolerance mm	: 3.05 : + 0.25	rack travel mm : 0.50
Rated speed rpm	+	Tolerance mm : +- 0.50 Rated speed rpm : 1600
		•
guide sleeve travel mm Tolerance mm	: + 0.25	
Rated speed rpm	: 1640	LOW IDLE
guide sleeve	. 13 50	control lever
guide sleeve travel mm Tolerance mm	: + 0.50	position degree : 73.0 tolerance degree : + 4.0
GUIDE SLEEVE POSI	TION	

control lever position degree tolerance degree	: 20.0 : + 4.0
Testing:	
Rated speed rom rack travel mm Tolerance mm	
Rated speed rpm	: 200
CRT mm min.	: > 6.70
Rated speed rpm	: 400
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 12.70 : ← 0.20
Rated speed rpm rack travel mm Tolerance mm	
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1300 : 2400 : 13.85 : +- 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 1300 : 7.60 : +- 0.10
Rated speed rpm	: 1300
Pressure hPa rack travel mm Tolerance mm	: 1580 : 5.90 : + 0.10
Pressure hPa rack travel mm Tolerance mm	: 370 : 0.25 : + 0.05

nPa Rated speed rpm Del. quantity Em3/1000 strokes Tolerance	: 2400 : 800
pel. quantity cm3/1000 strokes	: 800
m3/1000 strokes	
olerance	: 236.0
m3/1000 strokes	: 3.0
heck tolerance	
m3/1000s.	: +- 5.0
Spreed	
olerance	
m3/1000 strokes	: 10.0
Check tolerance	. 10.0
m3/1000s.	: 14.0
HIC/ 10003.	: 14.0
nonoid process	
neroid pressure Pa	: 2400
	: 2400 : 1000
ated speed rpm	: 1000
el. quantity	2// 5
m3/1000 strokes	: 244.0
olerance	
m3/1000 strokes	: ← 4.0
heck tolerance	
m3/1000s.	: ← 6.0
neroid pressure	
Pa	: -
ated speed rpm	: 500
el. quantity	
m3/1000 strokes	: 124.0
olerance	
m3/1000 strokes	: - 1.0
heck tolerance	
m3/1000s.	: +- 4.0
DEALANA	
REAKAWAY	
ack travel in mm	: 12.80
ated speed rpm	: 1340
olerance 1/min	
occidinoc itmin	• • •

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30,10,95 Test oil : ISO 4113

Combination No. : 0 402 646 665

Injection pump

Pump designation : PE6P130A720RS7354 EP type number : 0 412 636 835

Governor

Governer design. : RQV300...950PA1002

: -3K

Governer no. : 0 421 815 491

Cust. part No. :

Customer-spec. information

: IVECO-FRANCE Customer : 8210.42K.300 Motor

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 2 417 413 076

2.5 Inlet press. bar : : +- 0.1 Tolerance bar

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0 x inside diameter: 3.0 x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 5.05 : + 0.05 Tolerance mm

test only : + 0.10

Rack travel in mm: 12.00 Tolerance mm : \leftarrow 0.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : + - 0.30

Check

: + 0.50tolerance °NW

Start of delivery mark

Check

tolerance 'NW : ← 0.40

1 Barrel no.

BASIC SETTING

Rated speed rpm 950

Rack travel in mm : 12.05 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 244.0

Tolerance

cm3/1000 strokes : +- 1.0

Charle dallarance		
Check tolerance cm3/1000S. : +-	4.0	GUIDE SLEEVE POSITION
Spreed Tolerance		Rated speed rpm : 1200
cm3/1000 strokes :	5.0	Rack travel in mm : 11.00 Tolerance mm : + 2.70
Check tolerance cm3/1000s. :	9.0	
Rated speed rpm : 3	300 ‡	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 950
Rack travel in mm :	4.80	Rated speed rpm : 950 Aneroid pressure
Tolerance mm : +-		hPa : 900
Del. quantity	1	Del. quantity
cm3/1000 strokes :	22.0	cm3/1000 strokes : 244.0
Tolerance	1	Tolerance
cm3/1000 strokes : +-	3.0	cm3/1000 strokes : +- 1.0
Check tolerance	1	Check tolerance
cm3/1000s. : +-	6.0	cm3/1000s. : +- 4.0
Spreed	+	Spreed
Tolerance	+	Tolerance
cm3/1000 strokes :	8.0	cm3/1000 strokes : 5.0
Check tolerance	+	Check tolerance
cm3/1000s. :	12.0	cm3/1000s. : 9.0
Tolerance mm : + Rated speed rpm : 10 guide sleeve travel mm : + Rated speed rpm : 7 guide sleeve travel mm : 7 Guide sleeve travel mm : + Rated speed rpm : 5	300 1.64 0.20 0.25 9.00 0.15 764 6.22	control lever position degree : 114.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.00 Rated speed rpm : 1015 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1015 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : 0.50 Rated speed rpm : 1250
guide steeve	3.78	LOW IDLE
travel mm : : : : : : : : : : : : : : : : : :		LOM TOPE
roterance inn	J	
Rated speed rpm : 13 guide sleeve	330	control lever position degree : 71.0
	3.50	tolerance degree : + 4.0
Tolerance mm : +-		•
	+	Testing:
	+	

Rated speed rpm rack travel mm Tolerance mm	: +- 0.10	
Rated speed rpm	: 200	
CRT mm min.	: > 6.30	
Rated speed rpm	: 355	
TORQUE CONTROL		
Rated speed rpm		
rack travel mm Tolerance mm	: 12.05 : +- 0.05	
Rated speed rpm	: 700	
rack travel mm Tolerance mm	: 11.85 : ← 0.10	
Rated speed rpm		
rack travel mm	: 550 : 11.50	
Tolerance mm	: + 0.10	
Rated speed rpm		
rack travel mm	: 10.90	
olerance mm NEROID/ALTITUDE	: +- 0.30	
ANEROID/ALTITUDE		
Tolerance mm ANEROID/ALTITUDE		
Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm	: +- 0.30 : 950	Andrews and the second
ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa	: +- 0.30 : 950 : 900	
Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING	: +- 0.30 : 950	
ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm	: +- 0.30 : 950 : 900 : 12.05	
Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa	: + 0.30 : 950 : 900 : 12.05 : + 0.05	
Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa Rated speed rpm	: ← 0.30 : 950 : 900 : 12.05 : ← 0.05	
Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa	: + 0.30 : 950 : 900 : 12.05 : + 0.05	
Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa Rated speed rpm rack travel mm	: ← 0.30 : 950 : 900 : 12.05 : ← 0.05 : − : 950 : 8.50	
ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Folerance mm MEASUREMENT Pressure hPa Rated speed rpm rack travel mm Folerance mm Rated speed rpm rack travel mm Folerance mm	: +- 0.30 : 950 : 900 : 12.05 : +- 0.05 : : 950 : 8.50 : +- 0.20 : 950 : 290	
ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Folerance mm Rated speed rpm Pressure hPa Rated speed rpm rack travel mm Folerance mm Rated speed rpm Pressure hPa Rated speed rpm Pressure hPa Rated speed rpm	: +- 0.30 : 950 : 900 : 12.05 : +- 0.05 :	
ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Folerance mm MEASUREMENT Pressure hPa Rated speed rpm rack travel mm Folerance mm Rated speed rpm rack travel mm Folerance mm	: +- 0.30 : 950 : 900 : 12.05 : +- 0.05 : : 950 : 8.50 : +- 0.20 : 950 : 290	
ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Folerance mm MEASUREMENT Pressure hPa Rated speed rpm Prack travel mm Folerance mm Rated speed rpm Pressure hPa rack travel mm Folerance mm	: +- 0.30 : 950 : 900 : 12.05 : +- 0.05 : : 950 : 8.50 : +- 0.20 : 950 : 290 : 9.35 : +- 0.20 : 500	
NEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa Rack travel mm Colerance mm REASUREMENT Pressure hPa Rated speed rpm	: + 0.30 : 950 : 900 : 12.05 : + 0.05 : - : 950 : 8.50 : + 0.20 : 950 : 290 : 9.35 : + 0.20	

_	<	90 55 26	. —
_		90 55 26	STICS 00 50 54.0
A(t-	90 55 26	00 50 54.0
•••••••	+	26	50 54.0
	+	26	50 54.0
•	+-	26	64.0
:			
:	+-		
:	+-		3.0
:	+-		3.0
:			
٠			6.0
	-		0.0
:			-
:		55	iO
:		17	4.0
:	+-		1.0
_			, 0
:	+-		4.0
			· · · · · · · · · · · · · · · · · · ·
:			.00 5 5
	•	: +-	: 17 : +- : +-

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.25
Tolerance mm : + 0.75
Del. quantity
cm3/1000 strokes : 150.0
Tolerance
cm3/1000 strokes : + 15.0
Check tolerance
cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm : 300 rack travel mm : 4.80 Tolerance mm : $\leftarrow 0.20$ Del. quantity cm3/1000 strokes : 22.0

Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 31.10.95 : ISO 4113 Test oil

Combination No. : 0 403 466 176

Injection pump

Pump designation : PES6MW100/120RS1240

EP type number : 0 413 406 239

Governor

Governer design. : RSV450...1000MW2A396

Governer no. : 0 420 085 284

Cust. part No. : 3929174

Customer-spec. information

: CDC Customer

Motor : 6 CT-830

Power KW : 160.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +-1.0

Prestroke mm 3.35 : **←** 0.05 Tolerance mm

test only : + 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery blocking

*NW after s.o.d. : 8.00

Barrel no. : 1

BASIC SETTING

1000 Rated speed rpm :

Rack travel in mm: 12.40 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 146.0

Tolerance

cm3/1000 strokes : +- 1.0

_	Check tolerance
Check tolerance cm3/1000s. : + 4.0	cm3/1000s. : 7.5
Spreed	OONTROL A TUTTO
Tolerance cm3/1000 strokes : 4.0	CONTROL LEVER
Check tolerance	control lever position degree : 93.0
cm3/1000s. : 7.5	tolerance degree : + 4.0
Rated speed rpm : 400	RATED SPEED
Rack travel in mm: 5.50	rack travel mm : 11.40
Tolerance mm : +- 0.50	Rated speed rpm : 1045
Del. quantity +	Tolerance 1/min : + 5
cm3/1000 strokes : 20.0 + Tolerance +	rack travel mm : 4.00
cm3/1000 strokes : + 2.0 +	Rated speed rpm : 1125
Check tolerance	, ,
cm3/1000s. : +- 4.5	rack travel mm : 0.85
Spreed + Tolerance +	Tolerance mm : + 0.55 Rated speed rpm : 1300
cm3/1000 strokes : 3.5	Rated speed rpill . 1900
Check tolerance	rack travel mm : 4.00
cm3/1000s. : 5.5	Rated speed rpm : 1135
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
+	control lever
GUIDE SLEEVE POSITION	position degree : 74.0 tolerance degree : +- 4.0
Rated speed rpm : 800	toterance degree 4.0
1	
	Testing:
Rack travel in mm: 0.65	-
Rack travel in mm: 0.65 Tolerance mm: + 0.35	Rated speed rpm : 400
Tolerance mm : + 0.35	-
Tolerance mm : + 0.35 governor spring pre-tension	Rated speed rpm : 400 rack travel mm : 5.00
Tolerance mm : + 0.35 governor spring	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10
Tolerance mm : + 0.35 governor spring pre-tension	Rated speed rpm : 400 rack travel mm : 5.00
Tolerance mm : + 0.35 governor spring pre-tension	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1000
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 12.40
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1000
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 12.40 Tolerance mm : + 0.05
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 12.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 12.40
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 12.40 Tolerance mm : + 0.05 Rated speed rpm : 750
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 12.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 12.40
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 12.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 12.40
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 12.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 12.40 Tolerance mm : 12.40 Tolerance mm : 0.10
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 12.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 12.40 Tolerance mm : 12.40 Tolerance mm : 0.10
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 12.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 12.40 Tolerance mm : 12.40 Tolerance mm : 0.10 ANEROID/ALTITUDE COMPENSATOR TEST
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 12.40 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 12.40 Tolerance mm : 12.40 Tolerance mm : 0.10

Rated speed rpm Pressure hPa rack travel mm	: 500 : 1200 : 12.40
Tolerance mm	: ← 0.10
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 11.00 : + 0.05
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 750 : 12.00 : + 0.15
Pressure hPa rack travel mm Tolerance mm	: 600 : 11.30 : + 0.10
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa	: 1200
Rated speed rpm Del. quantity	: 750
cm3/1000 strokes	: 150.0
Tolerance cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000s. Spreed	: +- 5.0
Tolerance cm3/1000 strokes	: 6.0
Check tolerance cm3/1000s.	: 9.0
Aneroid pressure	
hPa Rated speed rpm	500
Del. quantity cm3/1000 strokes	
Tolerance	
cm3/1000 strokes Check tolerance	: + 1.0
cm3/1000s.	: ← 4.0
BREAKAWAY	

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 13.0

LOW IDLE

400 Rated speed rpm : 5.50 rack travel mm Tolerance mm 0.50 Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance 3.5 cm3/1000 strokes : Check tolerance cm3/1000s. 5.5

End of test specification sheet

Rated speed rpm

Tolerance 1/min

1045

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 12.07.95 : ISO 4113

Combination No. : 0 403 244 032A

Injection pump

Pump designation : PES4MW100/720RS1519

: -2

EP type number

: 0 413 204 017

Governor

Governer design.

: RQV300...1300MW132

: -1

Governer no.

: 0 420 083 292

Cust. part No. : 0240741102

Customer-spec. information : MB-NFZ Customer

Motor

: 0M364LA

Power KW

: 103.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.1

Test oil inlet

temp. °C

Tolerance °C

Overflow valve

: 1 419 992 198

Inlet press. bar :

1.5

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

208.5

Tolerance bar

1.5

Test lines

: 1 680 750 089

Outside diameter :

8.0

x inside diameter : 3.0 x length mm 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0

Tolerance bar 1.0 : +-

Prestroke mm 4.55

Tolerance mm : + 0.05

Check

: + 0.10tolerance mm

Rack travel in mm: 20.00

Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : +- 0.50

Check

tolerance "NW : + 0.75

BASIC SETTING

Rated speed rpm 1240

Rack travel in mm: 13.60

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 123.G

Tolerance

cm3/1000 strokes : +-

1.0

Check tolerance

cm3/1000s. 4.0

Spreed

Tolerance

cm3/1000 strokes :

5.0

Check tolerance cm3/1000s. : 8.0 Rated speed rpm : 300	- Rack travel in mm : 10.00 - Tolerance mm : +- 2.00
Rack travel in mm : 3.90 Tolerance mm : + 0.10	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes : 12.0 Tolerance	Rated speed rpm : 1240 - Aneroid pressure - hPa : 1200
cm3/1000 strokes : + 2.0 Check tolerance	- Del. quantity
cm3/1000s. : +- 4.5	- cm3/1000 strokes : 123.0 - Tolerance - cm3/1000 strokes : +- 1.0
Tolerance cm3/1000 strokes : 2.0	- Check tolerance - cm3/1000s. : + 4.0
Check tolerance cm3/1000s. : 4.0	Spreed Tolerance
1107 10000	- cm3/1000 strokes : 5.0 - Check tolerance
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	- cm3/1000s. : 8.0
GUIDE SLEEVE TRAVEL	- CONTROL LEVER
Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : + 0.20	control lever position degree : 111.0 tolerance degree : +- 4.0
Rated speed rpm : 1353	- RATED SPEED
guide sleeve travel mm : 7.02 Tolerance mm : + 0.15	- rack travel mm : 12.60 - Rated speed rpm : 1285 - Tolerance 1/min : +- 10
Rated speed rpm : 1090	rack travel mm : 4.00
guide sleeve travel mm : 5.21	Rated speed rpm : 1445 Tolerance 1/min : +- 5
Tolerance mm : +- 0.25	· rack travel mm : 0.50
Rated speed rpm : 790 guide sleeve	Tolerance mm : + 0.50 Rated speed rpm : 1550
travel mm : 3.98 Tolerance mm : + 0.25	
Rated smeed rpm : 1759 guide sleeve	LOW IDLE
travel mm : 12.00 + Tolerance mm : +- 0.25 +	control lever
Rated speed rpm : 1870	position degree : 74.0 tolerance degree : +- 4.0
guide sleeve travel mm : 13.50 Tolerance mm : + 0.50	Testing:
	Rated speed rpm : 300 rack travel mm : 3.90
GUIDE SLEEVE POSITION	Tolerance mm : + 0.10
Rated speed rpm : 1500	Rated speed rpm : 200

CRT mm min.	: > 4.70	Del. quantity cm3/1000 strokes : 121.0 Tolerance
TORQUE CONTROL		cm3/1000 strokes : +- 2.0 Check tolerance
Rated speed rpm rack travel mm	: 13.60	- cm3/1000s. : + 5.0 - Spreed - Tolerance
Tolerance mm	: +- 0.05	cm3/1000 strokes : 6.0 Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 13.60	cm3/1000s. : 9.0 Aneroid pressure
		∔ hPa : -
ANEROID/ALTITUDE COMPENSATOR TEST		Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 67.0
COMPENSATOR TEST		+ Tolerance + cm3/1000 strokes : +- 1.0
SETTING		Check tolerance + cm3/1000s. : +- 3.0
Rated speed rpm	: 500	+
Pressure hPa rack travel mm Tolerance mm	: 1200 : 13.60 : + 0.05	BREAKAWAY
MEASUREMENT		Rack travel in mm: 12.60 Rated speed rpm: 1285
Pressure hPa Rated speed rpm Tolerance mm	: - : 500 : + 0.10	Tolerance 1/min : + 10
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 600 : 2.00 : ← 0.10	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 150.0
Pressure hPa	; 350	+ Tolerance + cm3/1000 strokes : +- 5.0
rack travel mm Tolerance mm	: 0.50 : + 0.10	Check tolerance cm3/1000s. : +- 8.0
START CUT-OUT		
Rated speed rpm		LOW IDLE
Rated speed rpm	: < 200	Rated speed rpm : 300
Check speed 1/min	: > 80	rack travel mm : 3.90 Tolerance mm : + 0.10
Check	: < 220	Del. quantity cm3/1000 strokes : 12.0
speed 1/min	. \	+ Tolerance
FUEL DELIVERY CHA	NRACTERISTICS	
Aneroid pressure	: 1200	Spreed Tolerance
Rated speed rpm	: 600	+ cm3/1000 strokes : 2.0

cm3/1000s.	:	4.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 12.07.95 Edition Test oil : ISO 4113

Combination No. : 0 403 244 033A

Injection pump

Pump designation : PES4MW100/720RS1519

: -2

EP type number : 0 413 204 017

Governor

Governer design. : RQV300...1300MW132

: -1

Governer no. : 0 420 083 292

Cust. part No. : 0240748202

Customer-spec. information Customer : MB-NFZ

Motor : 0M364LA Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 : ← 0.05 Tolerance mm

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 20.00 Tolerance mm : ← 1.00

Firing order : 1-3-4-2

: 0-90-180-270 Phasina Tolerance : +- 0.50

Check

tolerance °NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1240

Rack travel in mm: 13.60 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 123.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

: +- 4.0 cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 5.0

Check tolerance	+	
cm3/1000s.	: 8.0	Rack travel in mm : 10.00 Tolerance mm : + 2.00
Rated speed rpm	: 300	
Rack travel in mm Tolerance mm	n: 3.90 :+ 0.10	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes	: 12.0	Rated speed rpm : 1240 Aneroid pressure
Tolerance cm3/1000 strokes	: + 2.0	hPa : 1200 Del. quantity
Check tolerance cm3/1000s.	: ← 4.5 [‡]	cm3/1000 strokes : 123.0 Tolerance
Spreed Tolerance	‡	cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes Check tolerance	+	cm3/1000s. : +- 4.0 Spreed
cm3/1000s.	: 4.0	Tolerance cm3/1000 strokes : 5.0
(B) SETTING OF IN	MECTION PUMP	Check tolerance : 8.0
WITH GOVERNOR	‡	
GUIDE SLEEVE TRAV	/EL	CONTROL LEVER
Rated speed rpm	: 300	control lever
guide sleeve travel mm	: 0.91	position degree : 111.0 tolerance degree : + 4.0
Tolerance mm	: + 0.20	toter drive degree . 4.0
Rated speed rpm	1	RATED SPEED
guide sleeve	+	rack travel mm : 12.60
travel mm	: 7.02	Rated speed rpm : 1285
Tolerance mm	: + 0.15	Tolerance 1/min : +- 10
Rated speed rpm	: 1090	rack travel mm : 4.00
guide sleeve	: 5.21	Rated speed rpm : 1445
travel mm Tolerance mm	: 5.21 : + 0.25	Tolerance 1/min : +- 5
10 cer arice tien	1	rack travel mm : 0.50
Rated speed rpm	: 790	Tolerance mm : +- 0.50
guide sleeve	7.00	Rated speed rpm : 1550
travel mm Tolerance mm	: 3.98 : + 0.25	
loter diffe min	1	
Rated speed rpm guide sleeve	: 1759	LOW IDLE
travel mm	: 12.00	
Tolerance mm	: + 0.25	control lever
Rated speed rpm	: 1870	position degree : 74.0 tolerance degree : + 4.0
guide sleeve travel mm	: 13.50	Testing:
Tolerance mm	: + 0.50	reserre
	+	Rated speed rpm : 300
		rack travel mm : 3.90
GUIDE SLEEVE POSI	TION	Tolerance mm : +- 0.10
Rated speed rpm	: 1500	Rated speed rpm : 200

CRT mm min.	: > 4.70	Del. quantity cm3/1000 strokes : 121.0 Tolerance
TORQUE CONTROL		cm3/1000 strokes : +- 2.0 Check tolerance
Rated speed rpm rack travel mm	: 1240	cm3/1000s. : +- 5.0 Spreed Tolerance
Tolerance mm	: + 0.05	cm3/1000 strokes : 6.0 Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 600 : 13.60	cm3/1000s. : 9.0
Tolerance mm	: ← 0.10 +	Aneroid pressure hPa : -
ANEROID/ALTITUDE	. +	Rated speed rpm : 500 Del. quantity
COMPENSATOR TEST	‡	cm3/1000 strokes : 67.0 Tolerance
SETTING	Ī	<pre>cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0</pre>
Rated speed rpm Pressure hPa		CII3/ 10003
rack travel mm Tolerance mm	: 13.60	BREAKAWAY
MEASUREMENT	<u> </u>	Rack travel in mm : 12.60 Rated speed rpm : 1285
Pressure hPa Rated speed rpm Tolerance mm		Tolerance 1/min : +- 10
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa rack travel mm	: 600	Rated speed rpm : 100 Del. quantity
Tolerance mm	· · · · · · · · · · · · · · · · · · ·	cm3/1000 strokes : 150.0 Tolerance
Pressure hPa rack travel mm	: 350 + : 0.50 +	cm3/1000 strokes : +- 5.0 Check tolerance
Tolerance mm	: + 0.10	cm3/1000s. : + 8.0
START CUT-OUT	<u> </u>	
Rated speed rpm Rated speed rpm	: > 100 : < 200	LOW IDLE
Check	1	Rated speed rpm : 300 rack travel mm : 3.90
speed 1/min	:> 80	Tolerance mm : +- 0.10
Check speed 1/min	: < 220	Del. quantity cm3/1000 strokes : 12.0
		Tolerance cm3/1000 strokes : +- 2.0
FUEL DELIVERY CHAI	RACTERISTICS +	Check tolerance cm3/1000s. : +- 4.5
Aneroid pressure hPa	: 1200	Spreed Tolerance
Rated speed rpm	: 600	cm3/1000 strokes : 2.0

cm3/1000s.	:	4.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 12.07.95 Test oil : ISO 4113

Combination No. : 0 403 244 034A

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0 413 204 018

Governor

Governer design. : RQV300...1300MW132

: -3

Governer no. : 0 420 083 296

Cust. part No. : 0240740702

Customer—spec. information Customer : MB-NFZ Motor : OM364LA

Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.50

Check

tolerance mm : + 0.10

Rack travel in mm : 20.00 Tolerance mm : +- 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : +- 0.50

Tolerance Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1270

Rack travel in mm : 11.15 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance cm3/1000s. Rated speed rpm	: 7.0 : 300	Rack travel in mm : 10.00 Tolerance mm : + 2.00
Rack travel in mm Tolerance mm	+	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes	+	Rated speed rpm : 1270 Aneroid pressure
Tolerance cm3/1000 strokes	: + 2.0	hPa : 700 Del. quantity
Check tolerance cm3/1000s. Spreed	: + 4.5	cm3/1000 strokes : 87.0 Tolerance cm3/1000 strokes : +- 1.0
Tolerance cm3/1000 strokes	: 2.0	Check tolerance cm3/1000s. : +- 3.0
Check tolerance cm3/1000s.	: 4.0	Spreed Tolerance cm3/1000 strokes : 4.5
(B) SETTING OF IN.	JECTION PUMP	Check tolerance cm3/1000s. : 7.0
WITH GOVERNOR	‡	
GUIDE SLEEVE TRAVE	EL ‡	CONTROL LEVER
Rated speed rpm guide sleeve travel mm	: 300 +	control lever position degree : 111.0 tolerance degree : +- 4.0
Tolerance mm	: + 0.20 : 1353	RATED SPEED
Rated speed rpm guide sleeve travel mm	: 7.02	rack travel mm : 10.10 Rated speed rpm : 1345
Tolerance mm	: + 0.15	Tolerance 1/min : + 10
Rated speed rpm guide sleeve travel mm	: 1090 +	rack travel mm : 4.00 Rated speed rpm : 1445 Tolerance 1/min : +- 5
Tolerance mm	: + 0.25	rack travel mm : 0.50
Rated speed rpm guide sleeve travel mm	: 790 : 3.98	Tolerance mm : +- 0.50 Rated speed rpm : 1550
Tolerance mm	: + 0.25	
Rated speed rpm guide sleeve	: 1759	LOW IDLE
travel mm Tolerance mm	: 12.00 : +- 0.25	control lever position degree : 74.0
guide sleeve	: 1870	tolerance degree : +- 4.0
travel mm Tolerance mm	: 13.50 : + 0.50	Testing: Rated speed rpm : 300
GUIDE SLEEVE POSIT	ION	rack travel mm : 4.00 Tolerance mm : + 0.10
Rated speed rpm	: 1500	Rated speed rpm : 200

CRT mm min.	: > 4.70	+ Check tolerance + cm3/1000s. : +- 4.0 + Spreed + Tolerance
TORQUE CONTROL		- cm3/1000 strokes : 6.0 - Check tolerance
Rated speed rpm rack travel mm	: 11.15	- cm3/1000s. : 9.0
Tolerance mm	: +- 0.05	+ Aneroid pressure + hPa : -
Rated speed rpm rack travel mm	: 11.15	Rated speed rpm : 500 Del. quantity
Tolerance mm	: +- 0.10	+ cm3/1000 strokes : 67.0 + Tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		+ cm3/1000 strokes : + 1.0 + Check tolerance + cm3/1000s. : + 3.0
SETTING		BREAKAWAY
Rated speed rpm	• 500	<u>†</u>
Pressure hPa	: 700	Rack travel in mm : 10.10
rack travel mm Tolerance mm		Rated speed rpm : 1345 Tolerance 1/min : +- 10
MEASUREMENT		Ŧ
Pressure hPa	; ~	STARTING FUEL DELIVERY
Rated speed rpm Tolerance mm	: 500 : + 0.10	+ Rated speed rpm : 100
		Del. quantity
Rated speed rpm	: 500	+ cm3/1000 strokes : 125.0 + Tolerance
Pressure hPa		+ cm3/1000 strokes : +- 5.0
rack travel mm Tolerance mm	: 0.20 : + 0.10	+ Check tolerance + cm3/1000S. : + 8.0
START CUT-OUT		
Rated speed rpm	: > 100	LOW IDLE
Rated speed rpm	: < 200	+ Rated speed rpm : 300
Check		+ rack travel mm : 4.00
speed 1/min	: > 80	Tolerance mm : + 0.10
Check speed 1/min	: < 220	+ Del. quantity + cm3/1000 strokes : 12.0
Speca Triatti		+ Tolerance
FUEL DELIVERY CHA	ARACTERISTICS	cm3/1000 strokes : + 2.0 Check tolerance
Aneroid pressure		+ cm3/1000s. : + 4.5 + Spreed
hPa	: 700	+ Tolerance
Rated speed rpm	: 750	cm3/1000 strokes : 2.0
Del. quantity cm3/1000 strokes	: 79.0	+ Check tolerance + cm3/1000s. : 4.0
Tolerance		†
cm3/1000 strokes	: 1.3	Ī

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 12.07.95 : ISO 4113 Test oil

Combination No. : 0 403 244 035A

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0 413 204 017

Governor

Governer design. : RQV300...1300MW132

: -3

Governer no. : 0 420 083 292

Cust. part No. : 0240740802

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 4.55 : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 20.00 Tolerance mm : +- 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 : **←** 0.50

Tolerance Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1270

Rack travel in mm: 11.15 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : + 3.0

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance cm3/1000s.	: 7.0	Rack travel in mm : 10.00 Tolerance mm : +- 2.00
Rated speed rpm	: 300	
Rack travel in m Tolerance mm Del. quantity		FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1270
cm3/1000 strokes Tolerance	-	- Aneroid pressure - hPa : 700
cm3/1000 strokes Check tolerance	: +- 2.0	- Del. quantity - cm3/1000 strokes : 87.0
cm3/1000s. Spreed Tolerance	: +- 4.5 -	Tolerance cm3/1000 strokes : +- 1.0
cm3/1000 strokes	: 2.0	- Check tolerance - cm3/1000s. : + 3.0
Check tolerance cm3/1000s.	: 4.0	- Spreed - Tolerance - cm3/1000 strokes : 4.5
(D) CETTING OF TH	ALIECTION CHARD	- Check tolerance - cm3/1000s. : 7.0
(B) SETTING OF IN	ACTION POPP	- cm5/10005. : /.u
GUIDE SLEEVE TRAN	VEL	CONTROL LEVER
Rated speed rpm	: 300	control lever
guide sleeve travel mm	: 0.91	position degree : 111.0
Tolerance mm	: + 0.20	tolerance degree : +- 4.0
	+	- RATED SPEED
Rated speed rpm	: 1353	not though an a 10.10
guide sleeve travel mm	: 7.02	- rack travel mm : 10.10 - Rated speed rpm : 1310
Tolerance mm	: +- 0.15	- Tolerance 1/min : + 10
Rated speed rpm	: 1090	- - rack travel mm : 4.00
guide sleeve	+	- Rated speed rpm : 1445
travel mm Tolerance mm	: 5.21 + 0.25 +	- Tolerance 1/min : + 5
	+	- rack travel mm : 0.50
Rated speed rpm guide sleeve	: 790	- Tolerance mm : +- 0.50 - Rated speed rpm : 1550
travel mm	: 3.98	-
Tolerance mm	: ← 0.25	-
Rated speed rpm guide sleeve	: 1759	- LOW IDLE
travel mm	: 12.00	•
Tolerance mm	: ← 0.25	- control lever - position degree : 74.0
Rated speed rpm guide sleeve	: 1870	tolerance degree : + 4.0
travel mm	: 13.50	Testing:
Tolerance mm	: ← 0.50	Rated speed rpm : 300
	+	rack travel mm : 4.00
GUIDE SLEEVE POSI	.110N	Tolerance mm : +- 0.10
Rated speed rpm	: 1500	Rated speed rpm : 200

CRT mam min.	: > 4.70	Check tolerance cm3/1000s. : + 4.0 Spreed
TORQUE CONTROL		Tolerance cm3/1000 strokes : 6.0 Check tolerance
Rated speed rpm rack travel mm	: 1270 : 11.15	cm3/1000s. : 9.0
Tolerance mm	: +- 0.05	Aneroid pressure hPa : -
Rated speed rpm rack travel mm Tolerance mm	: 750 : 11.15	Rated speed rpm : 500 Del. quantity
Tolerance mm	: +- 0.10	cm3/1000 strokes : 67.0 Tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
SETTING		BREAKAWAY
Rated speed rpm Pressure hPa rack travel mm	: 700 : 11.15	Rack travel in mm: 10.10 Rated speed rpm: 1310
Tolerance mm MEASUREMENT	: ← 0.05	Tolerance 1/min : +- 10
	+	
Pressure hPa Rated speed rpm	: - : 500 +	STARTING FUEL DELIVERY
Tolerance mm		Rated speed rpm : 100 Del. quantity
Rated speed rpm	: 500	cm3/1000 strokes : 125.0 Tolerance
Pressure hPa		cm3/1000 strokes : + 5.0
rack travel mm Tolerance mm		Check tolerance cm3/1000s. : +- 8.0
START CUT-OUT	+	
Rated speed rpm Rated speed rpm		LOW IDLE
•	+	Rated speed rpm : 300
Check speed 1/min	:> 80 +	rack travel mm : 4.00 Tolerance mm : +- 0.10
Check	. > 00	Del. quantity
speed 1/min	: < 220	cm3/1000 strokes : 12.0 Tolerance
FUEL DELIVERY CHA	ARACTERISTICS	cm3/1000 strokes : + 2.0 Check tolerance
Aneroid pressure	<u> </u>	cm3/1000s. : +- 4.5 Spreed
hPa	: 700	Tolerance
Rated speed rpm	: 750 +	cm3/1000 strokes : 2.0
Del. quantity cm3/1000 strokes Tolerance	: 79.0	Check tolerance cm3/1000s. : 4.0
cm3/1000 strokes	: +- 1.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 21.06.95 Test oil : ISO 4113

Combination No. : 0 403 476 142

Injection pump

Pump designation : PES6MW100/720RS1239

EP type number : 0 413 406 238

Governor

Governer design. : RSV750...1200MW0A372

Governer no. : 0 420 085 255

Cust. part No. : 0250748902

Customer information

Customer—spec. information
Customer : MB-NFZ
Motor : 0M366LA
Power KW : 90.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.65
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 12.30 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 67.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

	1
Check tolerance cm3/1000s. : 6.0	control lever position degree : 119.0 tolerance degree : + 4.0
Rated speed rpm : 350	+ RATED SPEED
Rack travel in mm: 7.50 Tolerance mm: + 0.25 Del. quantity cm3/1000 strokes: 12.0 Tolerance	rack travel mm : 1.00 Tolerance mm : +- 0.70 Rated speed rpm : 1450
cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5	rack travel mm : 4.00 Rated speed rpm : 1400 rack travel mm : 11.30
Spreed Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 1250 Tolerance 1/min : + 8
Check tolerance cm3/1000s. : 5.5	ASSEMBLY GOVERNOR SETTING
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1240 Tolerance 1/min : mi 0 rack travel mm : 11.30
GUIDE SLEEVE POSITION	Rated speed rpm : 1370 Tolerance 1/min : + 4 rack travel mm : 4.00
Rated speed rpm : 800 Rack travel in mm : 0.65	Rated speed rpm : 1241 Tolerance 1/min : mi 0 rack travel mm : 11.30
Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.00	Rated speed rpm : 1371 Tolerance 1/min : + 4 rack travel mm : 4.00
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1242 Tolerance 1/min : mi 0 rack travel mm : 11.30
	+
Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity	+ Rated speed rpm : 1372 + Tolerance 1/min : +- 4 - rack travel mm : 4.00
cm3/1000 strokes : 67.0 Tolerance	Rated speed rpm : 1243 Tolerance 1/min : mi 0
cm3/1000 strokes : + 1.0 Check tolerance	rack travel mm : 11.30
cm3/1000s. : + 3.0 Spreed Tolerance	Rated speed rpm : 1373 Tolerance 1/min : + 4 rack travel mm : 4.00
cm3/1000 strokes : 3.5 Check tolerance	Rated speed rpm : 1248
cm3/1000s. : 6.0	Tolerance 1/min : mi 0 rack travel mm : 11.30
CONTROL LEVER	Rated speed rpm : 1378 Tolerance 1/min : + 4 rack travel mm : 4.00

Rated speed rpm : 1249 Tolerance 1/min : mi 0 rack travel mm

1379 Rated speed rpm Tolerance 1/min rack travel mm 4.00

LOW IDLE

Testing:

Rated speed rpm : 350 7.50 rack travel mm Tolerance mm : + 0.25

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm 1200 rack travel mm 12.30 Tolerance mm : + 0.05

Rated speed rpm : 600 12.30 rack travel mm Tolerance mm : +- 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 600 Rated speed rpm

Del. quantity cm3/1000 strokes : 45.0

Tolerance cm3/1000 strokes : +-1.5

Check tolerance

4.0 cm3/1000s. : +-

Spreed Tolerance

5.0 cm3/1000 strokes :

Check tolerance cm3/1000s.

7.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 Del. quantity

cm3/1000 strokes : 83.0

Tolerance

cm3/1000 strokes : +- 5.0

Check tolerance

cm3/1000s. : +- 8.0

LOW IDLE

Rated speed rpm 350 rack travel mm 7.50 Tolerance mm : + 0.25 Del. quantity

cm3/1000 strokes : 12.0

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +--4.5

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 21.06.95 Test oil : ISO 4113

Combination No. : 0 403 476 143

Injection pump

Pump designation : PES6MW100/720RS1239

EP type number : 0 413 406 238

Governor

Governer design. : RSV750...1200MW0A373

Governer no. : 0 420 085 256

Cust. part No. : 0260746002

Customer-spec. information Customer : MB-NFZ Motor : 0M366LA Power KW : 62.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.65 Tolerance mm : + 0.05Check tolerance mm : \leftarrow 0.10

Rack travel in mm: 20.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance °NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 10.30 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 47.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.

: + 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

		1	
Check tolerance cm3/1000s.	: 6.0	control lever position degree	: 119.0
Rated speed rpm	: 350	RATED SPEED	
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	: +- 0.25	rack travel mm Tolerance mm Rated speed rpm	: 1.00 : + 0.70 : 1450
Tolerance cm3/1000 strokes	: +- 2.0	rack travel mm Rated speed rpm	
Check tolerance cm3/1000S. Spreed Tolerance	: → 4.5	rack travel mm Rated speed rpm Tolerance 1/min	: 1250
cm3/1000 strokes : Check tolerance		ASSEMBLY GOVERNO	
cm3/1000S. (B) SETTING OF INJE	: 5.5	Rated speed rpm Tolerance 1/min rack travel mm	: mi 0
WITH GOVERNOR	ECTION FOR	Rated speed rpm	: 1340
GUIDE SLEEVE POSITI	roni	† Tolerance 1/min rack travel mm	
Rated speed rpm :		Rated speed rpm Tolerance 1/min rack travel mm	: mi 0
Rack travel in mm : Tolerance mm :	0.65 + 0.35	+ Rated speed rpm + Tolerance 1/min	: 1341
governor spring pre-tension click setting x	4.00	rack travel mm Rated speed rpm	
FULL LOAD DELIVERY		Tolerance 1/min rack travel mm	
Rated speed rpm : Aneroid pressure	1000	Rated speed rpm Tolerance 1/min rack travel mm	: 1342 : +- 4 : 4.00
hPa Del. quantity cm3/1000 strokes : Tolerance	47.0	Rated speed rpm Tolerance 1/min rack travel mm	: 1243 : mi 0 : 9.30
cm3/1000 strokes : Check tolerance cm3/1000s. : Spreed	+ 1.0+ 3.0	Rated speed rpm Tolerance 1/min rack travel mm	: 1343 : +- 4 : 4.00
Tolerance cm3/1000 strokes : Check tolerance		Rated speed rpm Tolerance 1/min	: 1248 : mi 0
cm3/1000s. :	6.0	rack travel mm	: 9.30
CONTROL LEVER		Rated speed rpm Tolerance 1/min rack travel mm	: 1348 : +- 4 : 4.00
		Rated speed rpm	: 1249

Tolerance 1/min : mi 0 rack travel mm : 9.30

Rated speed rpm : 1349
Tolerance 1/min : + 4

Tolerance 1/min : + 4 rack travel mm : 4.00

LOW IDLE

Testing:

Rated speed rpm : 350 rack travel mm : 7.50 Tolerance mm : + 0.25

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm : 1200 rack travel mm : 10.30 Tolerance mm : +0.05

Rated speed rpm : 600 rack travel mm : 10.30 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 600

Del. quantity

cm3/1000 strokes : 28.0

Tolerance

cm3/1000 strokes : +- 1.5

Check tolerance

cm3/1000s. : +- 4.0

Spreed Tolerance

cm3/1000 strokes : 5.0

Check tolerance

cm3/1000s. : 7.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 83.0

Tolerance

cm3/1000 strokes : + 5.0

Check tolerance

cm3/1000s. : + 8.0

LOW IDLE

Rated speed rpm : 350 rack travel mm : 7.50 Tolerance mm : + 0.25

Del. quantity

cm3/1000 strokes : 12.0

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : + 4.5

Spreed

Tolerance cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 31.05.90 Test oil : ISO 4113

Combination No. : 0 400 836 016

Injection pump

Pump designation : PES6A85D410/3RS2415

EP type number : 0 410 886 915

Governor

Governer design. : RQV750AB1004L Governer no. : 0 420 212 093

Cust. part No.

Customer—spec. information Customer : KHD

Motor : BF6L913 Power KW : 42.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}C$: 40 Tolerance $^{\circ}C$: + 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Del. quantity

cm3/1000 strokes : 12.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : + 5.0

Spreed

Tolerance

cm3/1000 strokes : 2.5

Check tolerance

cm3/1000s. : 4.5

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

GUIDE SLEEVE TRAVEL

Rated speed rpm : 752

guide sleeve

travel mm : 3.33

Tolerance mm : + 0.25

Rated speed rpm

530

guide sleeve

travel mm : -6.91

- 1	. 0.25	,
Tolerance mm	: ← 0.25	Rated speed rpm : 739
Rated speed rpm guide sleeve	: 880	rack travel mm : 11.00
guide sleeve travel mm Tolerance mm	: 17.51	Rated speed rpm : 780
Tolerance mm	: ← 0.25	Tolerance 1/min : + 5
Rated speed rpm	: 825	rack travel mm : 4.00
		rack travel mm : 0.50
guide sleeve travel mm Tolerance mm	: 10.00	† Tolerance mm : + 0.50
Tolerance mm	: + 0.25	Partod speed ppp . 7/0
Rated speed rpm	: 880	+ Rated speed rpm : 740 + rack travel mm : 11.00
		+
guide sleeve travel mm	: 11.50	+ Rated speed rpm : 781
Tolerance mm	: +- 0.50	† Tolerance 1/min : + 5 † rack travel mm : 4.00
		Track travet mm : 4.00
GUIDE SLEEVE POSI	TION	rack travel mm : 0.50 Tolerance mm : +- 0.50
Data dan - 1		+ Tolerance mm : +- 0.50
Rated speed rpm	: OUU	Rated speed rpm : 741
		rack travel mm : 11.00
FULL LOAD DELIVER	RY AT FULL LOAD STOP	}
maked an educati	. 720	Rated speed rpm : 792
Rated speed rpm Aneroid pressure		Tolerance 1/min : + 5 + rack travel mm : 4.00
hPa	: -	T rack travet (int) . 4.50
		rack travel mm : 0.50
		Tolerance mm : + 0.50
CONTROL LEVER		Rated speed rpm : 742
CONTROL LEVER		+ Rated speed rpm : 742 + rack travel mm : 11.00
control lever		+
position degree	: 87.0	Rated speed rpm : 793
tolerance degree	: +- 4.0	+ Tolerance 1/min : + 5 + rack travel mm : 4.00
		T rack cravet min . 4.00
ASSEMBLY GOVERNOR	SETTING	rack travel mm : 0.50
5 1 13 11 11 11 11 11 11 11 11 11 11 11 1		+ Tolerance mm : +- 0.50
Rated speed rpm rack travel mm	: 737 : 11.00	İ
I dek ci avec iiiii	. 17.55	Ţ
Rated speed rpm	: 778	+
Tolerance 1/min	: +- 5	CTART CUT OUT
rack travel mm	: 4.00	+ START CUT-OUT
rack travel mm	: 0.50	Rated speed rpm : > 100
Tolerance mm	: ← 0.50	Rated speed rpm : < 660
Rated speed rpm	: 798	† Charle
Rated speed rpm	: 738	+ Check + speed 1/min :> 80
rack travel mm	: 11.00	+ Speed trimite
Rated speed rpm	: 779	FUEL DELIVERY CHARACTERISTICS
Tolerance 1/min rack travel mm	: +- 5 : 4.00	Aneroid pressure
I GUN CI GYCL IIIII	. 4.00	+ hPa : -
rack travel mm	: 0.50	Rated speed rpm : 750
Tolerance mm	: + 0.50	+

Del. quantity		
cm3/1000 strokes	:	36.0
Tolerance		
cm3/1000 strokes	: +-	1.0
Check tolerance		
cm3/1000s.	: +	3.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.0
Check tolerance		
cm3/1000s.	:	5.0
	•	- • •

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.25
Tolerance mm : + 0.75
Del. quantity
cm3/1000 strokes : 130.0
Tolerance
cm3/1000 strokes : + 5.0
Check tolerance
cm3/1000s. : + 8.0

LOW IDLE

Del. quantity
cm3/1000 strokes : 12.0
Tolerance
cm3/1000 strokes : +- 3.0
Check tolerance
cm3/1000s. : +- 5.0
Spreed
Tolerance
cm3/1000 strokes : 2.5
Check tolerance
cm3/1000s. : 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 06.06.95 Test oil : ISO 4113

Combination No. : 0 400 844 094

Injection pump

Pump designation : PES4A90D410RS2666 EP type number : 0 410 894 029

Governor

Governer design. : RQV300...1400AB1065

: -12L

Governer no. : 0 420 212 207

Cust. part No. :

Customer-spec. information Customer : MB-NFZ Motor : 0M364 Power KW : 61.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 1.5 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : \leftarrow 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 10.55 Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 59.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +- 2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. : 5.0

Rated speed rpm : 300

Rack travel in mm: 8.70

Tolerance mm : \leftarrow 0.10

Del. quantity

cm3/1000 strokes : 10.0

Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INTERPRETARE CM3/1000s.	: +- 4.0 : 2.0 : 4.0	control lever position degree : 116.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 9.50 Rated speed rpm : 1445 Tolerance 1/min : + 5 rack travel mm : 4.00
WITH GOVERNOR		Rated speed rpm : 1550 Tolerance 1/min : +- 15
GUIDE SLEEVE TRA	VEL	+ rack travel mm : 0.50
Rated speed rpm guide sleeve		Tolerance mm : +- 0.50 Rated speed rpm : 1700
travel mm Tolerance mm	: 1.05 : + 0.25	I
TOTEL GLICE INIT	0.25	LOW IDLE
Rated speed rpm guide sleeve	: 1500	
travel mm	: 8.55	control lever
Tolerance mm	: +- 0.05	position degree : 76.0
		+ tolerance degree : +- 4.0
Rated speed rpm	: 500	† <u></u>
guide sleeve	2 55	+ Testing:
travel mm Tolerance mm	: 2.55 : ← 0.25	Rated speed rpm : 300
roterance init	: - 0.2	+ Rated speed rpm : 300 + rack travel mm : 8.70
Rated speed rpm	: 750	Tolerance mm : + 0.10
guide sleeve	. 135	Total divide limit
travel mm	: 4.20	+ Rated speed rpm : 100
Tolerance mm	: + 0.10	+
		+ CRT mm min. :> 10.20
FULL LOAD DELIVER	RY AT FULL LOAD STOP	Rated speed rpm : 610
Rated speed rpm	: 1400	
Aneroid pressure		+ TORQUE CONTROL
hPa	•	† Dimension a mm : 1.00
Del. quantity cm3/1000 strokes	: 59.5	+ Dimension a mm : 1.00 + Rated speed rpm : 1400
Tolerance	. 37.3	+ rack travel mm : 10.55
cm3/1000 strokes Check tolerance	: ← 0.5	Tolerance mm : + 0.05
cm3/1000s.	: +- 2.5	Rated speed rpm : 475
Spreed		+ rack travel mm : 11.55
Tolerance		+ Tolerance mm : + 0.05
cm3/1000 strokes	: 3.0	+
Check tolerance		+ Rated speed rpm : 850
cm3/1000s.	: 5.0	+ rack travel mm : 11.00
		† Tolerance mm : + 0.10
CONTROL LEVER		<u> </u>
		+ START CUT-OUT
		+

Rated speed rpm	: > 100
Rated speed rpm	
Check	
speed 1/min	: > 80
Check	
speed 1/min	: < 240
	·
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa	: -
Rated speed rpm	: 475
Del. quantity	
cm3/1000 strokes	: 46.0
Tolerance	
cm3/1000 strokes	: +- 1.0
Check tolerance	
cm3/1000s.	: 3.5
	-
Aneroid pressure	
hPa	: ~
Rated speed rpm	: 850
Del. quantity	
cm3/1000 strokes	: 49.0
Tolerance	
cm3/1000 strokes	: +- 1.5
Check tolerance	
cm3/1000s.	: +- 4.0
BREAKAWAY	
6 . I. 4	0.50
Rack travel in mm	
Rated speed rpm	: 1445
Tolerance 1/min	: +- 5
STARTING FUEL DEL	TVEDV
SIMPLING FOEL DEL	TAEVI
Rated speed rpm	: 100
rack travel mm	: 100 : 17.20
Tolerance mm	: + 0.20
Del. quantity	
cm3/1000 strokes	: 83.0
Tolerance	. 05.0
cm3/1000 strokes	: +- 5.0
Check tolerance	
cm3/1000s.	: +- 8.0
LOW IDLE	
0 - 4 1	700
Rated speed rpm	: 300
kated speed rpm rack travel mm	: 300

Tolerance mm Del. quantity	: +-	0.10
cm3/1000 strokes	:	10.0
Tolerance cm3/1000 strokes	: +-	2.0
Check tolerance cm3/1000s.	: +-	4.0
Spreed Tolerance		
cm3/1000 strokes Check tolerance	:	2.0
cm3/1000s.	:	4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 06.06.95 Test oil : ISO 4113

Combination No. : 0 400 844 098

Injection pump

Pump designation : PES4A95D410RS2809 : 0 410 894 993 EP type number

Governor

Governer design. : RQV300...1400AB1065

: -28L

: 0 420 212 242 Governer no.

Cust. part No. :

Customer-spec. information Customer : MB-NFZ : OM 364 Motor Power KW 65.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : +- 1.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 1.5 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

: 1-3-4-2 Firing order

Phasing : 0-90-180-270 Tolerance : + 0.50

Check

tolerance 'NW : + 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 9.95 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 65.5

Tolerance cm3/1000 strokes : +-0.5

Check tolerance cm3/1000s. 2.5 : +-

Spreed Tolerance

cm3/1000 strokes :

3.5

Check tolerance cm3/1000s. 6.0

Rated speed rpm : 300

Rack travel in mm: 8.70 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 10.0

Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.5 Spreed	Check tolerance cm3/1000s. : 6.0
Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5	control LEVER control lever position degree : 115.0 tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	RATED SPEED rack travel mm : 8.90
GUIDE SLEEVE TRAVEL	+ Rated speed rpm : 1455 + Tolerance 1/min : +- 5
Rated speed rpm : 300 guide sleeve travel mm : 1.05 Tolerance mm : + 0.25 Rated speed rpm : 1500 guide sleeve travel mm : 8.55 Tolerance mm : + 0.05	rack travel mm : 4.00 Rated speed rpm : 1550 Tolerance 1/min : +- 15 rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1670
Rated speed rpm : 500 guide sleeve travel mm : 2.55 Tolerance mm : + 0.25 Rated speed rpm : 750 guide sleeve	LOW IDLE control lever position degree : 77.0 tolerance degree : +- 4.0
travel mm : 4.20 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION	Testing: Rated speed rpm : 300 rack travel mm : 8.70 Tolerance mm : + 0.10
Rated speed rpm : 1450	Rated speed rpm : 100
Rack travel in mm : 16.50 Tolerance mm : + 1.30	CRT mm min. :> 9.60 Rated speed rpm : 625
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1400	TORQUE CONTROL
Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 65.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : +- 2.5 Spreed	Rated speed rpm : 1400 rack travel mm : 9.95 Tolerance mm : + 0.05 Rated speed rpm : 400 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 670
Tolerance cm3/1000 strokes : 3.5	rack travel mm : 10.80 Tolerance mm : + 0.10

Rated speed rpm rack travel mm Tolerance mm		
START CUT-OUT		
Rated speed rpm Rated speed rpm		
Check speed 1/min Check	: > 80	
speed 1/min	: < 240	
FUEL DELIVERY CHA	RACTERISTICS	
Aneroid pressure hPa	: -	
Rated speed rpm Del. quantity		
cm3/1000 strokes Tolerance	: 49.5	
cm3/1000 strokes Check tolerance	: ← 1.5	
cm3/1000s.	: +- 4.0	
BREAKAWAY Rack travel in mm Rated speed rpm Tolerance 1/min	: 1455	
STARTING FUEL DEL	IVERY	
Rated speed rpm rack travel mm Tolerance mm	: 100 : 15.00 : + 0.20	
Del. quantity cm3/1000 strokes	: 83.0	
Tolerance cm3/1000 strokes	: +- 5.0	
Check tolerance cm3/1000s.	: +- 8.0	
OW IDLE	<u></u>	
Rated speed rpm	: 300 : 8.70	

Del. quantity
cm3/1000 strokes : 10.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed
Tolerance
cm3/1000 strokes : 3.5
Check tolerance
cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 04.09.86 Test oil : ISO 4113

Combination No. : 0 400 846 336

Injection pump

Pump designation : PES6A90D410RS2293W EP type number : 0 410 896 049

Governor

Governer design. : RQV300...1425AB740L

Governer no. : 0 420 212 037

Cust. part No. :

Customer—spec. information Customer : MB-NFZ Motor : 0M352 Power KW : 115.0

TEST BENCH REQUIREMENTS

Inlet line : 2.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.0

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.20
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm: 10.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance $^{\circ}NW$: + 0.75

BASIC SETTING

Rated speed rpm : 1400

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 72.0

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000s. : +- 2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance cm3/1000s.

: 4.5

	1
6 -1	+ Del. quantity
Del. quantity	+ cm3/1000 strokes : 72.0
cm3/1000 strokes : 12.0	+ Tolerance
Tolerance cm3/1000 strokes : +- 3.0	cm3/1000 strokes : + 0.5 Check tolerance
Check tolerance	+ cm3/1000s. : + 2.5
cm3/1000s. : +- 5.0	+ Spreed : +- 2.3
Spreed	Tolerance
Tolerance	+ cm3/1000 strokes : 3.0
cm3/1000 strokes : 2.0	Check tolerance
Check tolerance	+ cm3/1000s. : 4.5
cm3/1000s. : 4.0	I Chip/10003 4.3
· +.5	\mathbf{I}
(B) SETTING OF INJECTION PUMP	CONTROL LEVER
WITH GOVERNOR	+ CONTINUE CEVEN
	control lever
	position degree : 114.0
GUIDE SLEEVE TRAVEL	tolerance degree : +- 4.0
	+
Rated speed rpm : 1460	+ RATED SPEED
guide sleeve	+
travel mm : 8.50	rack travel mm : 9.90
Tolerance mm : + 0.10	Rated speed rpm : 1460
	+ Tolerance 1/min : + 5
Rated speed rpm : 550	}
guide sleeve	rack travel mm : 4.00
travel mm : 2.85	+ Rated speed rpm : 1575
Tolerance mm : + 0.15	+ Tolerance 1/min : + 15
	+
Rated speed rpm : 950	+ rack travel mm : 0.50
guide sleeve	+ Tolerance mm : + 0.50
travel mm : 5.35	+ Rated speed rpm : 1700
Tolerance mm : + 0.15	+
	†
Rated speed rpm : 775	
guide sleeve	+ LOW IDLE
travel mm : 4.35	†
Tolerance mm : + 0.25	†
- · · · · · · · · · · · · · · · · · · ·	+ control lever
Rated speed rpm : 300	position degree : 68.0
guide sleeve	tolerance degree : + 4.0
travel mm : 1.45	Ť **: *
Tolerance mm : + 0.75	+ Testing:
	Rated speed rpm : 300
CUIDE OF FEVE DOCTION	+ Rated speed rpm : 300 + rack travel mm : 7.60
GUIDE SLEEVE POSITION	Tolerance mm : 7.60
Rated speed rpm : 1420	1 Overance in U. iu
kateu speed rpm : 1420	Rated speed rpm : 100
Rack travel in mm : 16.50	I rated speed ipin . 100
Tolerance mm : + 1.30	T CRT mm min. :> 9.10
:	O1/4 DRIV 10/1/19
	Rated speed rpm : 445
FULL LOAD DELIVERY AT FULL LOAD STOP	, , ,
i was malls a montailly lift i dom malls a lat	
Rated speed rpm : 1400	TORQUE CONTROL
Aneroid pressure	1
hPa : -	Rated speed rpm : 1400
•••	+ Tolerance mm : + 0.05

START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : < 220 Check speed 1/min : > 80 Check 240 speed 1/min : < BREAKAWAY 9.90 Rack travel in mm : Rated speed rpm : Tolerance 1/min : +-STARTING FUEL DELIVERY 100 Rated speed rpm Del. quantity cm3/1000 strokes : 76.0 Tolerance cm3/1000 strokes : +-5.0 Check tolerance cm3/1000s.8.0 LOW IDLE Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance cm3/1000s. 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.10.92 Edition : ISO 4113 Test oil

Combination No. : 0 400 846 549

Injection pump

Pump designation : PES6A95D41ORS2471 EP type number : 0 410 896 952

Governor

Governer design. : RQV300...1250AB1089

: -2L

Governer no. : 0 420 212 190

Cust. part No. :

Customer-spec. information : KHD Customer

: BF6L913C Motor Power KW : 141.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : + 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0 x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Firing order : 1-5- 3- 6- 2-

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 11.65

: **←** 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 102.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +-3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.6.0

Rated speed rpm : 300

Rack travel in mm: 7.30

Tolerance mm : + 0.10

Del. quantity +	Tolerance
cm3/1000 strokes : 13.0	cm3/1000 strokes : 3.5
Tolerance	Check tolerance
cm3/1000 strokes : + 3.0 +	cm3/1000s. : 6.0
Check tolerance	CIID7 10005
cm3/1000s. : + 5.5 +	
Spreed	
Tolerance +	CONTROL LEVER
cm3/1000 strokes : 3.5	
Check tolerance	control lever
cm3/1000s. : 5.5	position degree : 122.0
1	tolerance degree : + 4.0
1	votor antes dog. es i i i i i i i i i i i i i i i i i i
(B) SETTING OF INJECTION PUMP	RATED SPEED
WITH GOVERNOR +	NATED OF CED
WITH GOVERNOR	rack travel mm : 10.60
T	
	Rated speed rpm : 1295
GUIDE SLEEVE TRAVEL +	Tolerance 1/min : +- 5
†	
Rated speed rpm : 300	rack travel mm : 4.00
guide steeve +	Rated speed rpm : 1360
travel mm : 1.35	Tolerance 1/min : +- 15
Tolerance mm : +- 0.05	
1	rack travel mm : 0.50
Rated speed rpm : 1290	Tolerance mm : + 0.50
guide sleeve	
	Rated speed rpm : 1500
travel mm : 8.45	
Tolerance mm : + 0.05	
†	
Rated speed rpm : 650	LOW IDLE
guide sleeve +	
travel mm : 3.80 +	
travel in 3.00 +	
The state of the s	control lever
Tolerance mm : + 0.10	control lever
Tolerance mm : + 0.10	position degree : 73.0
Tolerance mm : + 0.10 + Rated speed rpm : 1200 +	
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve	position degree : 73.0 tolerance degree : + 4.0
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00	position degree : 73.0
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve	position degree : 73.0 tolerance degree : + 4.0 Testing:
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 9.00
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50 Tolerance mm : + 1.30	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 9.00
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 9.00 Rated speed rpm : 418
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 9.00
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 9.00 Rated speed rpm : 418 TORQUE CONTROL
Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 9.00 Rated speed rpm : 418 TORQUE CONTROL Rated speed rpm : 1250
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : -	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 9.00 Rated speed rpm : 418 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 9.00 Rated speed rpm : 418 TORQUE CONTROL Rated speed rpm : 1250
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : -	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 9.00 Rated speed rpm : 418 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65 Tolerance mm : + 0.05
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 9.00 Rated speed rpm : 418 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65 Tolerance mm : + 0.05
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 102.0 Tolerance	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 9.00 Rated speed rpm : 418 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65 Tolerance mm : + 0.05
Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 102.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 9.00 Rated speed rpm : 418 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65 Tolerance mm : + 0.05
Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 102.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 9.00 Rated speed rpm : 418 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65 Tolerance mm : + 0.05
Tolerance mm : + 0.10 Rated speed rpm : 1200 guide sleeve travel mm : 7.00 Tolerance mm : + 0.10 GUIDE SLEEVE POSITION Rated speed rpm : 1290 Rack travel in mm : 16.50 Tolerance mm : + 1.30 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 102.0 Tolerance cm3/1000 strokes : + 1.0	position degree : 73.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 7.30 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 9.00 Rated speed rpm : 418 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65 Tolerance mm : + 0.05

rack travel mm Tolerance mm	: 11.65 : + 0.10	
START CUT-OUT		
Rated speed rpm Rated speed rpm	: > 100 : < 220	
Check speed 1/min	: > 80	
Check speed 1/min	: < 240	
FUEL DELIVERY CHA	ARACTERISTICS	-
Aneroid pressure	: -	
Rated speed rpm	: 850	
Del. quantity cm3/1000 strokes Tolerance	: 97.0	
cm3/1000 strokes	: ← 1.5	
Check tolerance cm3/1000s.	: ← 4.0	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 10.60 : 1295 : +- 5	
STARTING FUEL DEL	IVERY	
Rated speed rpm	: 100	
rack travel mm Tolerance mm	: 16.00 : +- 0.20	
Del. quantity		
cm3/1000 strokes Tolerance	: 127.0	
cm3/1000 strokes Check tolerance	: +- 5.0	
cm3/1000s.	: + 8.0	
LOW IDLE		
Rated speed rpm rack travel mm	: 300 : 7.30	
Tolerance mm Del. quantity	: + 0.10	

Tolerance
cm3/1000 strokes : +- 3.0
Check tolerance
cm3/1000s. : +- 5.5
Spreed
Tolerance
cm3/1000 strokes : 3.5
Check tolerance
cm3/1000s. : 5.5

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... : 07.06.95 Edition Test oil : ISO 4113 Combination No. : 0 400 874 218 Injection pump Pump designation : PES4A90D410RS2294 EP type number : 0 410 894 011 Governor Governer design. : RSV350...1400A0C2006 : 0 420 232 395 Governer no. Cust. part No. : Customer-spec. information Customer : MB-NFZ Motor : OM 314 Power KW : 62.5 TEST BENCH REQUIREMENTS Inlet line : 1.2 Test oil inlet temp. °C Tolerance °C : **←** 2.0 Overflow valve : 1 419 992 198 Inlet press. bar : 1.5 Test nozzle holde : 0 681 343 009 assembly Opening pressure : 173.5 bar Tolerance bar : **←** 1.5 Test lines : 1 680 750 014

x inside diameter: 2.0 x length mm : 600 REMARKS (A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____ BEGINNING OF DELIVERY Test pressure bar : 26.0 Tolerance bar : + 1.0 Firing order : 1-3-4-2 : 0-90-180-270 Phasing Tolerance : +- 0.50 Check tolerance °NW : +- 0.75 BASIC SETTING Rated speed rpm : 1380 Rack travel in mm: 10.45 : +- 0.05 Tolerance mm Del. quantity cm3/1000 strokes : 64.0 Tolerance cm3/1000 strokes : \leftarrow 0.5 Check tolerance cm3/1000s. : +-2.5 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. 4.5 Rated speed rpm : 350 Rack travel in mm: 9.30 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 27.0

Outside diameter : 6.0

Tolerance +	Tolerance mm : + 0.70
cm $3/1000$ strokes : +- 3.0 +	Rated speed rpm : 1600
Check tolerance +	
cm3/1000s. : +- 5.0 +	
Spreed	
Tolerance	LOW IDLE
cm3/1000 strokes : 2.0 +	
Check tolerance	
cm3/1000s. : 4.0	control lever
	position degree : 83.0
1	tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP	totor arise degree
WITH GOVERNOR	Testing:
T T T T T T T T T T T T T T T T T T T	resemg.
$\underline{1}$	Rated speed rpm : 350
	rack travel mm : 9.30
GUIDE SLEEVE POSITION	Tolerance mm : +- 0.10
GOIDE SECENE LOSTITON	Toterance with . += 0.10
Rated speed rpm : 800	rack travel mm : 2.00
Rated speed rpm : 800 +	
Deal Americal in the Control of the	Rated speed rpm : 560
Rack travel in mm: 0.65	Tolerance 1/min : ← 30
Tolerance mm : + 0.35 +	
†	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP +	CRT mm min. : > 19.00
+	
Rated speed rpm : 1380 +	Rated speed rpm : 650
Aneroid pressure +	
hPa : - +	CRT mm max. : < 1.00
Del. quantity	
cm3/1000 strokes : 64.0	
Tolerance +	TORQUE CONTROL
cm3/1000 strokes : + 0.5	
Check tolerance	Rated speed rpm : 1380
cm3/1000s. : + 2.5	rack travel mm : 10.45
Spreed	Tolerance mm : + 0.05
Tolerance	19cci di jec ilan 0.05
cm3/1000 strokes : 3.0	Rated speed rpm : 600
Check tolerance	rack travel mm : 10.55
cm3/1000s. : 4.5	Tolerance mm : + 0.10
Ţ	
T	
CONTROL LEVER	
CONTROL LEVER	
control lover	
control lever	DDEALANA
position degree : 115.0 +	BREAKAWAY
tolerance degree : +- 4.0 +	
†	2 / 2
RATED SPEED +	Rack travel in mm: 9.40
†	Rated speed rpm : 1425
rack travel mm : 9.40	Tolerance 1/min : +- 5
Rated speed rpm : 1425	
Tolerance 1/min : + 5	
+	
rack travel mm : 4.40	STARTING FUEL DELIVERY
Rated speed rpm : 1498	
Tolerance 1/min : + 8	Rated speed rpm : 100
1	rack travel mm : 15.00
rack travel mm : 1.00	Tolerance mm : + 0.30

LOW IDLE

Rated speed rpm rack travel mm	: :	350 9.30
Tolerance mm	: +-	0.10
Del. quantity cm3/1000 strokes		27.0
Tolerance	•	27.0
cm3/1000 strokes	: +-	3.0
Check tolerance		5.0
cm3/1000s. Spreed	:	3.0
Tolerance		
cm3/1000 strokes	:	2.0
Check tolerance		
cm3/1000s.	:	4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.07.95 Test oil : ISO 4113

Combination No. : 0 400 874 256

Injection pump

Pump designation : PES4A95D410RS2877 EP type number : 0 410 894 988

Governor

Governer design. : RSV350...1400A0c819L

Governer no. : 0 420 232 617

Cust. part No.

Customer—spec. information Customer : MB-NFZ Motor : OM364 Power KW : 65.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 1.5 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25
Tolerance mm : +- 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : + 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 10.55
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 72.0

Tolerance cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s. : 8.0	‡	Rated speed rpm rack travel mm	: 1433 : 9.55
Rated speed rpm : 350	1	Rated speed rpm Tolerance 1/min	
Rack travel in mm : 8.30 Tolerance mm : + 0.20	+	rack travel mm	: 4.00
Del. quantity cm3/1000 strokes : 12.0 Tolerance	‡	rack travel mm Tolerance mm	: 1.00 : +- 0.70 : 1620
cm3/1000 strokes : + 2.0 Check tolerance	Ī	Rated speed rpm Rated speed rpm	
cm3/1000s. : +- 4.5 Spreed	‡	rack travel mm	
Tolerance cm3/1000 strokes : 5.5	+	Rated speed rpm Tolerance 1/min	
Check tolerance cm3/1000s. : 9.0	+	rack travel mm	: 4.00 : 1.00
	I	Tolerance mm	: + 0.70
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+	Rated speed rpm	
	+	Rated speed rpm	
	‡	rack travel mm	: 9.55
GUIDE SLEEVE POSITION	+	Rated speed rpm	: 1490
	+	Tolerance 1/min	
governor spring pre-tension	‡	rack travel mm	: 4.00
click setting x : 4.00	4	rack travel mm	: 1.00
	+	Tolerance mm	: + 0.70
FILL LOAD DELTAMENT ELLE LOAD OTOD	+	Rated speed rpm	: 1620
FULL LOAD DELIVERY AT FULL LOAD STOP	Ī	Rated speed rpm	: 1436
Rated speed rpm : 1380 Aneroid pressure	‡	rack travel mm	9.55
hPa : -	+	Rated speed rpm	: 1491
Del. quantity	+	Tolerance 1/min	
cm3/1000 strokes : 72.0 Tolerance	‡	rack travel mm	: 4.00
cm3/1000 strokes : +- 1.0	+	rack travel mm	: 1.00
Check tolerance	†	Tolerance mm	: ← 0.70
cm3/1000s. : +- 3.0 Spreed	Ť	Rated speed rpm	: 1620
Tolerance	I	Rated speed rpm	: 1437
cm3/1000 strokes : 3.5	1	rack travel mm	9.55
Check tolerance	+		
cm3/1000s. : 8.0	+	Rated speed rpm	: 1492
	†	Tolerance 1/min	
	1	rack travel mm	: 4.00
CONTROL LEVER	I	rack travel mm	: 1.00
	1	Tolerance mm	: +- 0.70
control lever	+	Rated speed rpm	: 1620
position degree : 111.0	†	Dadad	. 6170
tolerance degree : + 4.0	†	Rated speed rpm	
	İ	rack travel mm	: 9.55
ASSEMBLY GOVERNOR SETTING	T	Rated speed rpm	: 1493
TO THE ROOM OF THE PARTY OF THE	-		
	Ī	Tolerance 1/min	

rack travel mm 4.00 1.00 rack travel mm Tolerance mm : **←** 0.70 Rated speed rpm 1620 LOW IDLE control lever 80.0 position degree tolerance degree : + 4.0 Testing: 350 Rated speed rpm 8.30 rack travel mm Tolerance mm : + 0.20 2.00 rack travel mm Rated speed rpm 500

100

: > 19.50

SET IDLE AUXILIARY SPRING

Rated speed rpm : 100 rack travel mm : 2.00

TORQUE CONTROL

Rated speed rpm

CRT mm min.

Rated speed rpm : 1400 rack travel mm : 10.55 Tolerance mm : + 0.05

Rated speed rpm : 500 rack travel mm : 10.60 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 400

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 16.20
Tolerance mm : + 0.20
Del. quantity
cm3/1000 strokes : 83.0
Tolerance
cm3/1000 strokes : + 5.0
Check tolerance
cm3/1000s. : + 8.0

LOW IDLE

Rated speed rom 350 rack travel mm 8.30 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s.4.5 : +-Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 31.05.95 Edition : ISO 4113 Test oil

Combination No. : 0 401 846 471

Injection pump

Pump designation : PE6P100A720RS447 EP type number : 0 411 806 191

Governor

Governer design. : RQ225/1200PA617 Governer no. : 0 421 801 157

Cust. part No. : 0661514

Customer-spec. information Customer : DAF : DHT 825 Motor Power KW : 162.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

40 temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : +-0.1

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar : **←** 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0 x inside diameter : 3.0 x Lenath mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25 : + 0.05 Tolerance mm Check tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

: 1-5-3-6-2firing order : 4

Phasing : 0-60-120-180-240

: -300

Tolerance : ← 0.30

Check

: + 0.50tolerance °NW

BASIC SETTING

1000 Rated speed rpm :

Rack travel in mm: 11.45 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 119.5

Tolerance

cm3/1000 strokes : + ?1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

		+ Rated speed rpm	: 650
Check tolerance cm3/1000s.	: 6.0	Rack travel in mm	: 16.00
Rated speed rpm	: 225	+ Total dilea limii	5.00
Rack travel in mm Tolerance mm		FULL LOAD DELIVER	Y AT FULL LO
Del. quantity cm3/1000 strokes		Rated speed rpm Aneroid pressure	: 1000
Tolerance cm3/1000 strokes		hPa Del. quantity	: 700
Check tolerance		+ cm3/1000 strokes	: 119.5
cm3/1000s. Spreed	: + 4.5	Tolerance cm3/1000 strokes	: +- 1.0
Tolerance cm3/1000 strokes	: 3.5	+ Check tolerance + cm3/1000S.	: + 3.0
Check tolerance cm3/1000s.	: 5.5	+ Spreed + Tolerance	
		+ cm3/1000 strokes + Check tolerance	: 3.5
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	cm3/1000s.	: 6.0
GUIDE SLEEVE TRAVI	EL	CONTROL LEVER	
Rated speed rpm	: 225	control lever	. 404.0
guide sleeve travel mm	: 1.06	+ position degree + tolerance degree	
Tolerance mm	: ← 0.10	RATED SPEED	
Rated speed rpm	: 1247	+	45.45
guide sleeve travel mm	: 6.48	+ rack travel mm + Rated speed rpm	
Tolerance mm	· + 0.10	Tolerance 1/min	
Rated speed rpm	: 1200	rack travel mm	: 4.00
guide sleeve travel mm	: 6.00	+ Rated speed rpm + Tolerance 1/min	
Tolerance mm	: + 0.10	+	
Rated speed rpm guide sleeve	: 390	rack travel mm Tolerance mm Rated speed rpm	: 0.50 : + 0.50 : 1450
travel mm	: 3.78	+	
Tolerance mm	: + 0.10	İ	
Rated speed rpm guide sleeve	: 520	LOW IDLE	
travel mm	: 6.00	+	
Tolerance mm Rated speed rpm	: +- 0.10 : 1400	+ control lever + position degree + tolerance degree	
guide sleeve	. 1700	+ cocci di se degi ee	• • •••
travel mm	: 11.50	Testing:	
Tolerance mm	: +- 0.50	Rated speed rpm	: 225
GUIDE SLEEVE POSIT	ION	rack travel mm Tolerance mm	: 5.40 : + 0.10

LOAD STOP

rack travel mm : 2.00
Rated speed rpm : 385
Tolerance 1/min : + 20
Rated speed rpm : 125
CRT mm min. : > 6.00

TORQUE CONTROL

Rated speed rpm : 1000 rack travel mm : 11.45 Tolerance mm : +- 0.05

Rated speed rpm : 1200 rack travel mm : 11.45 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 600
Pressure hPa : 700
rack travel mm : 11.45
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 600
rack travel mm : 10.45
Tolerance mm : + 0.10

Rated speed rpm : 600

Pressure hPa : 315
rack travel mm : 11.15
Tolerance mm : + 0.05

Pressure hPa : 280 rack travel mm : 10.70 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 600

Del. quantity

cm3/1000 strokes : 94.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

BREAKAWAY

Rack travel in mm: 10.45
Rated speed rpm: 1243
Tolerance 1/min: +- 8

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : \pm 0.75

Del. quantity

cm3/1000 strokes : 220.0

Tolerance

cm3/1000 strokes : \leftarrow 15.0

Check tolerance

cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm : 225
rack travel mm : 5.40
Tolerance mm : + 0.20
Del. quantity
cm3/1000 strokes : 12.0
Tolerance

cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5

Spreed

Tolerance cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 04.08.95 Test oil : ISO 4113

Combination No. : 0 401 846 962

Injection pump

Pump designation : PE6P12OA32ORS3189 EP type number : 0 411 826 759

Governor

Governer design. : RQ750PA783-3 Governer no. : 0 421 801 631

Cust. part No. : 864847 PO3 v. 02/95

Customer—spec. information Customer : PENTA

Motor : TWD 1010 G

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Vibration

damper

(RoBo diaphragm): 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.65 Tolerance mm : + 0.05

Check tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance $: \leftarrow 0.30$

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 11.80Tolerance mm : $\leftarrow 0.05$

Del. quantity

cm3/1000 strokes : 260.0

Tolerance cm3/1000 strokes	: +- 1.0	
Check tolerance	· + 4.0	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700
Spreed	***************************************	Aneroid pressure
Tolerance cm3/1000 strokes	: 5.0	Del. quantity cm3/1000 strokes : 260.0 Tolerance
Check tolerance cm3/1000s.	: 9.0	cm3/1000 strokes : + 1.0 Check tolerance
Rated speed rpm	: 300	+ cm3/1000s. : +- 4.0 + Spreed + Tolerance
Rack travel in mi	n: 4.60 : + 0.30	+ cm3/1000 strokes : 5.0 + Check tolerance
Del. quantity cm3/1000 strokes		cm3/1000s. : 9.0
Tolerance cm3/1000 strokes		<u> </u>
Check tolerance cm3/1000s.	: +- 5.0	CONTROL LEVER
Spreed		control lever
Tolerance cm3/1000 strokes Check tolerance	: 5.0	<pre>position degree : 85.0 tolerance degree : +- 4.0</pre>
cm3/1000s.	: 8.0	RATED SPEED
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP	rack travel mm : 10.80 Rated speed rpm : 752 Tolerance 1/min : + 3
GUIDE SLEEVE TRAV	/EL	+ rack travel mm : 4.00 + Rated speed rpm : 790 + Tolerance 1/min : + 7
Rated speed rpm guide sleeve	: 757	rack travel mm : 0.50
travel mm Tolerance mm	: 3.32 : + 0.25	Tolerance mm : + 0.50 Rated speed rpm : 850
Rated speed rpm guide sleeve	: 540	ASSEMBLY GOVERNOR SETTING
travel mm Tolerance mm	: -6.04 : ← 0.25	Rated speed rpm : 750 rack travel mm : 10.80
Rated speed rpm guide sleeve	: 890	Rated speed rpm : 788 Tolerance 1/min : +- 4
travel mm Tolerance mm	: 16.40 : +- 0.25	rack travel mm : 4.00
Rated speed rpm	: 837	rack travel mm : 0.50 Tolerance mm : + 0.50
guide sleeve travel mm	: 10.00	Rated speed rpm : 850 Rated speed rpm : 751
Tolerance mm	: +- 0.25	+ Rated speed rpm : 751 + rack travel mm : 10.80
Rated speed rpm guide sleeve	: 900 : 11.50	+ Rated speed rpm : 789 + Tolerance 1/min : +- 4
travel mm Tolerance mm	: + 0.50	+ rack travel mm : 4.00

rack travel mm	: 0.50
Tolerance mm	: + 0.50
Rated speed rpm	: 850
Rated speed rpm	: 752
rack travel mm	: 10.80
Rated speed rpm	: 790
Tolerance 1/min	: +- 4
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: + 0.50
Rated speed rpm	: 850
Rated speed rpm	: 753
rack travel mm	: 10.80
Rated speed rpm	: 791
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: + 0.50
Rated speed rpm	: 850
Rated speed rpm	: 754
rack travel mm	: 10.80
Rated speed rpm	: 792
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: ← 0.50
Rated speed rpm	: 850
Rated speed rpm	: 755
rack travel mm	: 10.80
Rated speed rpm	: 793
Tolerance 1/min	: ← 4
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: + 0.50
Rated speed rpm	: 850

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 11.80 Tolerance mm : +- 0.05

BREAKAWAY

Rack travel in mm : 10.80
Rated speed rpm : 752
Tolerance 1/min : + 3

LOW IDLE

Rated speed rpm rack travel mm	:	300 4.60 0.30
Tolerance mm Del. quantity cm3/1000 strokes		
Tolerance	:	25.0
cm3/1000 strokes Check tolerance	: +	2.5
cm3/1000s. Spreed	: +-	5.0
Tolerance cm3/1000 strokes Check tolerance	:	5.0
cm3/1000s.	:	8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20.04.95 Test oil : ISO 4113

Combination No. : 0 401 846 993

Injection pump

Pump designation : PE6P110A720RS3348 EP type number : 0 411 816 797

Governor

Governer design. : RQV250...1200PA413

: -8

Governer no. : 0 421 814 147

Cust. part No. : 612.60.08.0217

Customer-spec. information Customer : SNF

Motor : WD612.36 Power KW : 135.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : ← 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 2.0
Tolerance bar : +- 0.1

Overflow quantity

min. l/h : 210
Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5 Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.65
Tolerance mm : + 0.50

Check

tolerance mm : + 0.10

Rack travel in mm : 14.30 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.30

Check

tolerance "NW : \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 14.30 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 145.0

Tolerance

cm3/1000 strokes : +- 1.0

,	mulata at acces
At 1 1 1 1	guide sleeve
Check tolerance cm3/1000s. : +- 4.0	- travel mm : 11.50 - Tolerance mm : +- 0.50
Spreed	
Tolerance	- GUIDE SLEEVE POSITION
cm3/1000 strokes : 4.0	L GOIDE BEELVE / OUI/10/4
(IIID) 1000 3 C1 0 KC3 . 4.0	Rated speed rpm : 1390
Check tolerance	Rated speed rpill . 1370
	nada 4
cm3/1000s. : 7.5	- Rack travel in mm : 12.80
	- Tolerance mm : + 1.30
Rated speed rpm : 250	<u>.</u>
Rack travel in mm: 5.00	- FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance mm : + 0.30	=
Del. quantity	- Rated speed rpm : 1200
cm3/1000 strokes : 12.0	- Aneroid pressure
Tolerance	- hPa : 700
cm3/1000 strokes : + 3.0	- Del. quantity
Check tolerance	- cm3/1000 strokes : 145.0
cm3/1000s. : +- 6.0	- Tolerance
Spreed	- cm3/1000 strokes : +- 1.0
Tolerance	- Check tolerance
cm3/1000 strokes : 4.5	- cm3/1000s. : +- 4.0
Check tolerance	- Spreed
cm3/1000s. : 7.5	- Spreed - Tolerance
Cm5/ (UUU3. : 7.5 -	
	- cm3/1000 strokes : 4.0
	- Check tolerance
(B) SETTING OF INJECTION PUMP	- cm3/1000s. : 7.5
WITH GOVERNOR	•
The state of the s	_
7	
CUTNE SI EEVE TRAVEI	CONTROL LEVED
GUIDE SLEEVE TRAVEL	- CONTROL LEVER
·	•
Rated speed rpm : 250	- control lever
Rated speed rpm : 250 guide sleeve	- - control lever - position degree : 103.0
Rated speed rpm : 250 guide sleeve travel mm : 0.44	- control lever
Rated speed rpm : 250 guide sleeve	control lever position degree : 103.0 tolerance degree : +- 4.0
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20	- - control lever - position degree : 103.0
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257	control lever position degree : 103.0 tolerance degree : +- 4.0 RATED SPEED
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve	control lever position degree : 103.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 13.30
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36	control lever position degree : 103.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve	control lever position degree : 103.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 13.30
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04 Tolerance mm : + 0.25	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.50
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04 Tolerance mm : + 0.25 Rated speed rpm : 740	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04 Tolerance mm : + 0.25 Rated speed rpm : 740 guide sleeve	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.50
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04 Tolerance mm : + 0.25 Rated speed rpm : 740 guide sleeve travel mm : 740 guide sleeve travel mm : 4.26	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04 Tolerance mm : + 0.25 Rated speed rpm : 740 guide sleeve	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm: : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04 Tolerance mm : + 0.25 Rated speed rpm : 740 guide sleeve travel mm : 4.26 Tolerance mm : + 0.25	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1500
Rated speed rpm: : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04 Tolerance mm : + 0.25 Rated speed rpm : 740 guide sleeve travel mm : 4.26 Tolerance mm : + 0.25 Rated speed rpm : 1458	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm: : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04 Tolerance mm : + 0.25 Rated speed rpm : 740 guide sleeve travel mm : 4.26 Tolerance mm : + 0.25 Rated speed rpm : 1458 guide sleeve	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1500
Rated speed rpm: : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04 Tolerance mm : + 0.25 Rated speed rpm : 740 guide sleeve travel mm : 4.26 Tolerance mm : + 0.25 Rated speed rpm : 1458 guide sleeve travel mm : 1458 guide sleeve travel mm : 10.60	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE
Rated speed rpm: : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04 Tolerance mm : + 0.25 Rated speed rpm : 740 guide sleeve travel mm : 4.26 Tolerance mm : + 0.25 Rated speed rpm : 1458 guide sleeve	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE
Rated speed rpm : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04 Tolerance mm : + 0.25 Rated speed rpm : 740 guide sleeve travel mm : 4.26 Tolerance mm : + 0.25 Rated speed rpm : 1458 guide sleeve travel mm : 1458 guide sleeve travel mm : 10.60 Tolerance mm : + 0.25	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 69.0
Rated speed rpm: : 250 guide sleeve travel mm : 0.44 Tolerance mm : + 0.20 Rated speed rpm : 1257 guide sleeve travel mm : 7.36 Tolerance mm : + 0.15 Rated speed rpm : 1080 guide sleeve travel mm : 6.04 Tolerance mm : + 0.25 Rated speed rpm : 740 guide sleeve travel mm : 4.26 Tolerance mm : + 0.25 Rated speed rpm : 1458 guide sleeve travel mm : 1458 guide sleeve travel mm : 10.60	control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 13.30 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE

250 5.00 + 0.10 2.00 360 + 20 150 > 6.50 1200 14.30 + 0.05 700 14.30 + 0.10
360 + 20 150 > 6.50 1200 14.30 + 0.05 700 14.30
> 6.50 1200 14.30 + 0.05 700 14.30
1200 14.30 + 0.05 700 14.30
14.30 +- 0.05 700 14.30
14.30 +- 0.05 700 14.30
14.30
500 700 14.30 ← 0.05
- 500 12.80 ← 0.10
500
320 13.30 ← 0.05
410 13.80 ⊢ 0.10

Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 13.30 : 1245 : + 5
STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 12.80 : + 0.10
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 100 : 12.80 : + 0.10 : 118.0 : + 10.0
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 12.80 : + 0.10 : 118.0 : + 10.0 : + 14.0 : + 14.0 : 5.00 : + 0.30 : + 0.30 : + 3.0 : + 6.0

cm3/1000s.	:	7.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.05.95 Test oil : ISO 4113

Combination No. : 0 402 646 785

Injection pump

Pump designation : PE6P12DA32DLS7869 EP type number : 0 412 626 887

Governor

Governer design. : RQV300...1050PA1078K

Governer no. : 0 421 815 359

Cust. part No. : 9275445

Customer spec. information Customer : LIEBHERR : D 9406 TI Motor Power KW : 300.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

: 165 min, L/h Tolerance l/h: \leftarrow 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.65 : + 0.05Tolerance mm

Check

: + 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-6-3-5-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.30

Check

tolerance *NW : + 0.50

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 12.00 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 279.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed		ted speed rpm : 1320
Tolerance		ride sleeve
cm3/1000 strokes : 5	5.0 → tr	avet mm : 13.50
		lerance mm : + 0.50
Check tolerance		
).o \$\daggeq \bigs	
Call 7 (0005)		THE CLEENE POSTTION
Data d amoud name a 700		IDE SLEEVE POSITION
Rated speed rpm : 300		
		ted speed rpm : 1185
	10 +	
Tolerance mn : \leftarrow 0.	10 + Ra	ck travel in mm : 10.80
Del. quantity	<u> </u>	lerance mm : +- 1.30
).0	
Tolerance	1 _	
	.O - FU	LL LOAD DELIVERY AT FULL LOAD STOP
	T 10	TE FOUND DEFINER AT LOTE FOUND STOL
Check tolerance	·	4050
		ted speed rpm : 1050
Spreed		eroid pressure
Tolerance	+ hP	a : 1550
cm3/1000 strokes : 6	.O → De	l. quantity
Check tolerance		3/1000 strokes : 279.0
		lerance
		3/1000 strokes : +- 1.0
(n) amerilla air villimattali m		eck tolerance
(B) SETTING OF INJECTION P		3/1000s. : $+$
WITH GOVERNOR		reed
	<u>+</u> To	lerance
	——————————————————————————————————————	3/1000 strokes : 5.0
GUIDE SLEEVE TRAVEL		eck tolerance
		3/1000s. : 9.0
		o, 10000.
Poted chood non . 300		
Rated speed rpm : 300		
guide sleeve	†	
guide sleeve travel mm : 1.	69 + -	
guide sleeve	69 + -	NTROL LEVER
guide sleeve travel mm : 1. Tolerance mm : + 0.	69 — — CO	
guide sleeve travel mm : 1.	69 — — CO	NTROL LEVER
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117	69 — — co	ntrol lever
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve	69 — — — — — — — — — — — — — — — — — — —	ntrol lever sition degree : 121.0
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10.	69 — — — — — — — — — — — — — — — — — — —	ntrol lever sition degree : 121.0
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve	69 — — — — — — — — — — — — — — — — — — —	ntrol lever sition degree : 121.0 lerance degree : +- 4.0
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0.	69 — COI — COI — PO: 38 — to 25 — RA	ntrol lever sition degree : 121.0
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746	69 — COI — COI — PO: TO — RA	ntrol lever sition degree : 121.0 lerance degree : +- 4.0 TED SPEED
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve	69 — COI — COI — POI — RA' — RA' — RA'	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ok travel mm : 11.00
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.3	69 — COI — COI — POI — RA' — Ra' — R	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve	69 — COI — COI — POI — RA' — Ra' — R	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ok travel mm : 11.00
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6. Tolerance mm : + 0.	69 — CO 25 — CO 1 — po: 38 — to 25 — RA 20 — Ra; 20 — Ra;	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.7 Tolerance mm : + 0.7	69 — CO 25 — CO 1 — po: 38 — to 25 — RA 20 — Ra; 20 — Ra;	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.7 Tolerance mm : + 0.7 Rated speed rpm : 533	69 — COI — COI — POI — RAI — POI — Rai — Toi — Poi — Rai — Toi — Poi — Rai — Toi — Poi — Rai — Toi — Poi — Poi — Rai — Poi — Rai — Poi — P	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.3 Tolerance mm : + 0. Rated speed rpm : 6.3 Tolerance mm : + 0.3	69 — CO 25 — CO 1 — po 38 — to 25 — RA 20 — Ra 25 — To	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.3 Tolerance mm : + 0.3 Rated speed rpm : 353 guide sleeve travel mm : 2.4	69 — CO 25 — CO 1 — po 38 — to 25 — RA 20 — Ra 25 — To	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.3 Tolerance mm : + 0. Rated speed rpm : 6.3 Tolerance mm : + 0.3	69 — COI — COI — POI — POI — RAI — POI — RAI — POI — RAI — POI — RAI — POI — RAI — R	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185 lerance 1/min : + 15
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.3 Tolerance mm : + 0.3 Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : 2.4 Tolerance mm : + 0.3	69 — COI — COI — POI — POI — RAI — R	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185 lerance 1/min : + 15 ck travel mm : 0.50
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6. Tolerance mm : + 0. Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : + 0. Rated speed rpm : 2.4 Tolerance mm : + 0.	69 — CO 25 — CO 40 — PO: 38 — to 25 — RA 20 — Ra 21 — To	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185 lerance 1/min : + 15 ck travel mm : 0.50 lerance mm : + 0.50
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.3 Tolerance mm : + 0.3 Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 2.4 Tolerance mm : + 0.3	69 — COI — COI — POI — RAI — Rai — Rai — Toi — Rai — R	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185 lerance 1/min : + 15 ck travel mm : 0.50
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6. Tolerance mm : + 0. Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : + 0. Rated speed rpm : 2.4 Rated speed rpm : 2.4 Tolerance mm : + 0.6 Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : 403 guide sleeve travel mm : 3.6	69 — CO 25 — CO 25 — CO 26 — PO 27 — RA 28 — To 28 — Ra 29 — Ra 20 — Ra 25 — To 25 — To 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 24 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 24 — Ra 25 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 24 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — R	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185 lerance 1/min : + 15 ck travel mm : 0.50 lerance mm : + 0.50
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.3 Tolerance mm : + 0.3 Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 2.4 Tolerance mm : + 0.3	69 — CO 25 — CO 25 — CO 26 — PO 27 — RA 28 — To 28 — Ra 29 — Ra 20 — Ra 25 — To 25 — To 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 24 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 24 — Ra 25 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 24 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — R	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185 lerance 1/min : + 15 ck travel mm : 0.50 lerance mm : + 0.50
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6. Tolerance mm : + 0. Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : + 0. Rated speed rpm : 2.4 Rated speed rpm : 2.4 Tolerance mm : + 0.6 Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : 403 guide sleeve travel mm : 3.6	69 — CO 25 — CO 25 — CO 26 — PO 27 — RA 28 — To 28 — Ra 29 — Ra 20 — Ra 25 — To 25 — To 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 24 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 24 — Ra 25 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 20 — Ra 21 — Ra 22 — Ra 24 — Ra 25 — Ra 26 — Ra 27 — Ra 28 — Ra 28 — Ra 28 — Ra 29 — Ra 20 — R	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185 lerance 1/min : + 15 ck travel mm : 0.50 lerance mm : + 0.50
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.3 Tolerance mm : + 0.3 Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 403 guide sleeve travel mm : 2.4 Tolerance mm : + 0.3	69 25	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185 lerance 1/min : + 15 ck travel mm : 0.50 lerance mm : + 0.50 ted speed rpm : 1300
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.3 Tolerance mm : + 0.3 Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 403 guide sleeve travel mm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 403 guide sleeve travel mm : 3.6 Tolerance mm : + 0.6	69 25	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185 lerance 1/min : + 15 ck travel mm : 0.50 lerance mm : + 0.50
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.3 Tolerance mm : + 0.3 Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 403 guide sleeve travel mm : 3.3 Tolerance mm : + 0.3 Rated speed rpm : 403 guide sleeve travel mm : 3.3 Tolerance mm : + 0.3	69 25	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185 lerance 1/min : + 15 ck travel mm : 0.50 lerance mm : + 0.50 ted speed rpm : 1300
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.3 Tolerance mm : + 0.3 Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 403 guide sleeve travel mm : 3.6 Rated speed rpm : 403 guide sleeve travel mm : 3.6 Rated speed rpm : 450 guide sleeve travel mm : 3.6	69 25	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185 lerance 1/min : + 15 ck travel mm : 0.50 lerance mm : + 0.50 ted speed rpm : 1300
guide sleeve travel mm : 1. Tolerance mm : + 0. Rated speed rpm : 1117 guide sleeve travel mm : 10. Tolerance mm : + 0. Rated speed rpm : 746 guide sleeve travel mm : 6.3 Tolerance mm : + 0.3 Rated speed rpm : 353 guide sleeve travel mm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 2.4 Tolerance mm : + 0.3 Rated speed rpm : 403 guide sleeve travel mm : 3.3 Tolerance mm : + 0.3 Rated speed rpm : 403 guide sleeve travel mm : 3.3 Tolerance mm : + 0.3	69 25	ntrol lever sition degree : 121.0 lerance degree : + 4.0 TED SPEED ck travel mm : 11.00 ted speed rpm : 1105 lerance 1/min : + 5 ck travel mm : 4.00 ted speed rpm : 1185 lerance 1/min : + 15 ck travel mm : 0.50 lerance mm : + 0.50 ted speed rpm : 1300

control lever		‡	Pressure hPa	: 725
position degree tolerance degree	: 74.0 : + 4.0	†	rack travel mm Tolerance mm	
Testing:		<u> </u>	Pressure hPa	
Rated speed rpm rack travel mm	: 6.10	+	rack travel mm Tolerance mm	: + 0.10
Tolerance mm		‡	START CUT-OUT	
Rated speed rpm	: 200	‡	Rated speed rpm	: > 100
CRT mm min.	: > 8.00	1	Rated speed rpm Rated speed rpm	: < 220
Rated speed rpm	: 400	+	Check speed 1/min	: > 80
TORQUE CONTROL		 ‡	Check speed 1/min	: < 240
Rated speed rpm	: 1050	‡	····	
rack travel mm Tolerance mm	: 12.00	‡	FUEL DELIVERY CHA	ARACTERISTICS
Data dama adama		+	Aneroid pressure	4550
Rated speed rpm		†	hPa	: 1550 : 800
rack travel mm Tolerance mm		I	Rated speed rpm Del. quantity	. 800
TOCCI GITOC IIBII	• • • • • • • • • • • • • • • • • • • •	1	cm3/1000 strokes	: 295.0
Rated speed rpm	: 500	+	Tolerance	
rack travel mm	: 9.75	+	cm3/1000 strokes	: ← 3.0
Tolerance mm	: + 0.10	1	Check tolerance cm3/1000s.	: + 6.0
Rated speed rpm	: 950	4	CIIIC7 100001	
rack travel mm Tolerance mm		 	Aneroid pressure	
Tolerance mm	: ← 0.10	+	hPa	: 1550
	400	†	Rated speed rpm	: 500
Rated speed rpm	: 600	†	Del. quantity	270.0
rack travel mm		†	cm3/1000 strokes	: 270.0
Tolerance mm	: +- 0.18	Ī	Tolerance cm3/1000 strokes	• + 3.0
***************************************		I	Check tolerance	
ANEROID/ALTITUDE COMPENSATOR TEST		‡	cm3/1000s.	: ← 6.0
		+	Aneroid pressure	
		†	hPa	
SETTING		†	Rated speed rpm	: 550
Rated speed rpm	: 1050	I	Del. quantity cm3/1000 strokes	: 250.0
Pressure hPa	: 1550	1	Tolerance	. 250.0
rack travel mm	: 12.00	+	cm3/1000 strokes	: 1.0
Tolerance mm	: ← 0.05	+	Check tolerance	
MEASUREMENT		‡	cm3/1000s. Spreed	: +- 4.0
Dansan In-	_	†	Tolerance	. 9.0
Pressure hPa	: 1050	†	cm3/1000 strokes Check tolerance	: 8.0
Rated speed rpm rack travel mm	: 9.35	I	cm3/1000s.	: 12.0
Tolerance mm	: + 0.10	I	0.507 100001	. ,2.0
. Sec acros time		+		
Rated speed rpm	: 1050	+	BREAKAWAY	

Rack travel in mm: 11.00
Rated speed rpm: 1105
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 9.55 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : + 10.0

Check tolerance cm3/1000s. : + 14.0

LOW IDLE

300 Rated speed rpm rack travel mm 6.10 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 50.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance 6.0 cm3/1000 strokes : Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.08.95 Test oil : ISO 4113

Combination No. : 0 402 648 797

Injection pump

Pump designation : PE8P120A320LS7873 EP type number : 0 412 628 880

Governor

Governer design. : RQ750PA1231 : 0 421 801 791 Governer no.

Cust. part No. : 04222112KY0165-17

Customer-spec. information

Customer : KHD

: BF8M1015/C Motor Power KW : 318.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

208.5 bar : **←** 1.5 Tolerance bar

Test Lines : 1 680 750 075

Outside diameter : 8.0 x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : + 1.0

4.05 Prestroke mm Tolerance mm : +~ 0.05

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-8-7-2-6

: - 5- 4- 3

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.30

Check

tolerance *NW : + 0.50

Start of delivery mark

Barrel no.

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 13.30 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 365.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s.

: +- 4.0

	1
Spreed	+ Aneroid pressure + hPa : -
Tolerance	+ hPa : - + Del. quantity
cm3/1000 strokes : 5.0	+ cm3/1000 strokes : 365.0
CHOY TODO SCHOKES : J.O	+ Tolerance
Chack tolonopeo	+ cm3/1000 strokes : + 1.0
Check tolerance cm3/1000s. : 9.0	
cm3/1000s. : 9.0	+ Check tolerance + cm3/1000s. : + 4.0
Ontail annual annual 200	
Rated speed rpm : 300	+ Spreed
Dool Americal Survey of 70	+ Tolerance
Rack travel in mm: 4.70	+ cm3/1000 strokes : 5.0
Tolerance mm : + 0.20	+ Check tolerance
Del. quantity	+ cm3/1000s. : 9.0
cm3/1000 strokes : 20.0	Ť
Tolerance	†
cm3/1000 strokes : + 3.0	CONTROL LEVER
Check tolerance cm3/1000s. : ← 6.0	+ CONTROL LEVER
	T annual laws
Spreed	+ control lever
Tolerance	+ position degree : 109.0
cm3/1000 strokes : 8.0	tolerance degree : + 4.0
Check tolerance	T DATES CREES
cm3/1000s. : 12.0	+ RATED SPEED
	T most travel on a 0.50
(D) CETTAIC OF THE CETTAN DUMP	+ rack travel mm : 0.50 + Tolerance mm : + 0.50
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	+ Rated speed rpm : 900
	ASSEMBLY GOVERNOR SETTING
GUIDE SLEEVE TRAVEL	T ASSEMBLE GOVERNOR SETTING
GOIDE SEELVE MANUE	Rated speed rpm : 750
Rated speed rpm : 768	+ rack travel mm : 12.30
guide sleeve	1 4000 01 4000 11111 1 12:00
travel mm : 6.28	Rated speed rpm : 780
Tolerance mm : + 0.15	+ Tolerance 1/min : +- 4
TOCCI CITICO TIMIS	+ rack travel mm : 5.50
Rated speed rpm : 610	1 Car Crave Comm
guide sleeve	+ rack travel mm : 0.50
travel mm : 0.52	+ Tolerance mm : + 0.50
Tolerance mm : + 0.25	Rated speed rpm : 900
TO COT ALTO MAIN	The second special spin 1 years
Rated speed rpm : 900	+ Rated speed rpm : 751
guide sleeve	+ rack travel mm : 12.30
travel mm : 14.60	1
Tolerance mm : + 0.15	Rated speed rpm : 781
	+ Tolerance 1/min : +- 4
Rated speed rpm : 866	rack travel mm : 5.50
guide sleeve	+
travel mm : 12.00	+ rack travel mm : 0.50
Tolerance mm : + 0.25	+ Tolerance mm : + 0.50
	+
Rated speed rpm : 930	+ Rated speed rpm : 752
guide sleeve	+ rack travel mm : 12.30
travel mm : 13.50	+
Tolerance mm : + 0.50	+ Rated speed rpm : 782
	+ Tolerance 1/min : +- 4
	rack travel mm : 5.50
FULL LOAD DELIVERY AT FULL LOAD STOP	-
	† rack travel mm : 0.50
Rated speed rpm : 700	+ Tolerance mm : + 0.50

Rated speed rpm	: 900
Rated speed rpm rack travel mm	: 753 : 12.30
Rated speed rpm Tolerance 1/min rack travel mm	: 783 : +- 4 : 5.50
rack travel mm Tolerance mm	: 0.50 : + 0.50
Rated speed rpm rack travel mm	: 754 : 12.30
Rated speed rpm Tolerance 1/min rack travel mm	: + 4
rack travel mm Tolerance mm Rated speed rpm	: +- 0.50
Rated speed rpm rack travel mm	: 755 : 12.30
Rated speed rpm Tolerance 1/min rack travel mm	: 785 : ← 4 : 5.50
rack travel mm Tolerance mm	: 0.50 : + 0.50
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 700 : 13.30 : + 0.05
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 560
Check speed 1/min	: > 80
Check speed 1/min	: < 580
STARTING FUEL DEL	IVERY

rack travel mm Tolerance mm	: 20.25 : +- 0.75
Del. quantity cm3/1000 strokes Tolerance	: 205.0
cm3/1000 strokes Check tolerance	: + 20.0
cm3/1000s.	: +- 24.0
LOW IDLE	
Rated speed rpm	: 300_
rack travel mm Tolerance mm	: 4.70 : +- 0.20
Del. quantity	
cm3/1000 strokes Tolerance	: 20.0
cm3/1000 strokes Check tolerance	:
cm3/1000s.	: +- 6.0
Tolerance	
cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 12.0

End of test specification sheet

Rated speed rpm : 100

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.05.95 Edition Test oil : ISO 4113

Combination No. : 0 402 678 826

Injection pump

Pump designation : PE8P120A320LS7878 EP type number : 0 412 628 906

Governor

Governer design. : RSV400...1000P1A589 Governer no. : 0 421 833 449

Cust. part No. : 9275722

Customer-spec. information Customer : LIEBHERR : D 9308 TI Motor Power KW : 330.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 105 Tolerance l/h: + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : \leftarrow 1.0

Prestroke mm : 4.55 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-8-7-2-6 Firing order : - 3- 5- 4

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : **←** 0.30

Check

tolerance $^{\circ}NW$: + 0.50

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm: 13.30 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 259.0

Tolerance cm3/1000 strokes : +-1.0

Check tolerance : +cm3/1000s. 4.0

Spreed Tolerance cm3/1000 strokes : 5.0	CONTROL LEVER
Check tolerance cm3/1000s. : 9.0	control lever position degree : 100.0 tolerance degree : + 4.0
Rated speed rpm : 400	RATED SPEED
Rack travel in mm: 4.60 Tolerance mm: + 0.20 Del. quantity cm3/1000 strokes: 20.0 Tolerance cm3/1000 strokes: + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes: 6.0 Check tolerance cm3/1000 strokes: 6.0	rack travel mm : 12.30 Rated speed rpm : 940 Tolerance 1/min : rack travel mm : 4.00 Rated speed rpm : 1000 Tolerance 1/min : rack travel mm : 0.85 Tolerance mm : Rated speed rpm : 160 rack travel mm : 4.00 Rated speed rpm : 1020
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION Rated speed rpm : 800	control lever position degree : 76.0 tolerance degree : + 4.0
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring	Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.40
pre-tension click setting x : 4.00	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900	Rated speed rpm : 400 rack travel mm : 4.60 Tolerance mm : + 0.20
Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0	rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30
Tolerance cm3/1000 strokes : +- 1.0	TORQUE CONTROL
Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance	Rated speed rpm : 900 rack travel mm : 13.30 Tolerance mm : + 0.05
cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0	Rated speed rpm : 500 rack travel mm : 13.30 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 1200 Pressure hPa rack travel mm 13.30 Tolerance mm : **←** 0.05

MEASUREMENT

Pressure hPa Rated speed rpm 500 11.90 rack travel mm Tolerance mm : +- 0.15

500 Rated speed rpm

900 Pressure hPa rack travel mm 12.90 Tolerance mm : **←** 0.05

Pressure hPa 008 : rack travel mm 12.40 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1200 hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 275.0 Tolerance

cm3/1000 strokes 3.0

Check tolerance

cm3/1000s. 6.0

Aneroid pressure

hPa 500 Rated speed rpm Del. quantity

cm3/1000 strokes : 233.0

Tolerance

1.0 cm3/1000 strokes

4.0

Check tolerance cm3/1000s.

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

BREAKAWAY

Rack travel in mm: 12,30 Rated speed rpm Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm 20.50 : + - 0.50Tolerance mm Del. quantity cm3/1000 strokes :

215.0

Tolerance

cm3/1000 strokes : +-20.0

Check tolerance

cm3/1000s. : + 24.0

LOW IDLE

Rated speed rpm 400 rack travel mm 4.60 Tolerance mm 0.20 Del. quantity cm3/1000 strokes 20.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000S.6.0 : +-Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000S. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.05.95 Test oil : ISO 4113

Combination No. : 0 402 678 826A

Injection pump

Pump designation : PE8P12OA32OLS7878 EP type number : 0 412 628 906

Governor

Governer design. : RSV400...1000P1A589 Governer no. : 0 421 833 449

Cust. part No. : 9275722

Customer—spec. information Customer : LIEBHERR Motor : D 9308 TI Power KW : 330.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C :

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Overflow quantity

min. L/h : 105 Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50Tolerance mm : +- 1.50

Firing order : 1-8-7-2-6 :-3-5-4

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.30

Check

tolerance "NW : + 0.50

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm : 13.30 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 259.0

Tolerance cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : + 4.0

	1
Spreed	I -
Tolerance	+ CONTROL LEVER
cm3/1000 strokes : 5.0	+
Ohn ill had a says	+ control lever
Check tolerance cm3/1000s. : 9.0	+ position degree : 100.0 + tolerance degree : + 4.0
cm3/1000s. : 9.0	T coterance degree . 4- 4.0
Rated speed rpm : 400	RATED SPEED
Part America Science (1770)	10.70
Rack travel in mm : 4.60 Tolerance mm : + 0.20	+ rack travel mm : 12.30 + Rated speed rpm : 940
Del. quantity	Tolerance 1/min : +- 5
cm3/1000 strokes : 20.0	Total units 17 mm
Tolerance	+ rack travel mm : 4.00
cm3/1000 strokes : +- 3.0	+ Rated speed rpm : 1000
Check tolerance	† Tolerance 1/min : + 15
cm3/1000s. : +- 6.0 Spreed	rack travel mm : 0.85
Tolerance	+ Tolerance mm : +- 0.55
cm3/1000 strokes : 6.0	+ Rated speed rpm : 1160
Check tolerance	+
cm3/1000s. : 10.0	+ rack travel mm : 4.00
	Rated speed rpm : 1020
(B) SETTING OF INJECTION PUMP	$\frac{1}{4}$
WITH GOVERNOR	
	+ LOW IDLE
	†
GUIDE SLEEVE POSITION	t control lever
GOINE OFFICE LOCALION	position degree : 76.0
Rated speed rpm : 800	+ tolerance degree : +- 4.0
- 4 4 9 50	†
Rack travel in mm : 0.50 Tolerance mm : +- 0.20	Setting point w/out bumper spring
Toterarice tight . The U.20	Rated speed rpm : 400
governor spring	+ rack travel mm : 3.40
pre-tension	+
click setting x : 4.00	+ Testing:
	+ Rated speed rpm : 400
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Rated speed rpm : 400 + rack travel mm : 4.60
TOLE LOND DELIVERY AT TOLE LOND OTO.	+ Tolerance mm : + 0.20
Rated speed rpm : 900	+
Aneroid pressure	+ rack travel mm : 2.00
hPa : 1200	Rated speed rpm : 500
hPa : 1200 Del. quantity	
hPa : 1200 Del. quantity cm3/1000 strokes : 259.0	Rated speed rpm : 500
hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 500
hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL
hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900
hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900 rack travel mm : 13.30
hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance	Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900
hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900 rack travel mm : 13.30 Tolerance mm : + 0.05 Rated speed rpm : 500
hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0	Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900 rack travel mm : 13.30 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1200
rack travel mm : 13.30
Tolerance mm : ← 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 12.00
Tolerance mm : + 0.10

Rated speed rpm : 500

Pressure hPa : 900 rack travel mm : 12.90 Tolerance mm : + 0.05

Pressure hPa : 850 rack travel mm : 12.40 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1200 Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 275.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : + 6.0

Aneroid pressure

hPa : -Rated speed rpm : 550

Del. quantity

cm3/1000 strokes : 233.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : \leftarrow 4.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

BREAKAWAY

Rack travel in mm: 12.30
Rated speed rpm: 940
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 200.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm 400 rack travel mm 4.60 Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes 3.0 : +--Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.05.95 Test oil : ISO 4113

Combination No. : 0 402 678 826B

Injection pump

Pump designation : PE8P120A320LS7878 EP type number : 0 412 628 906

Governor

Governer design. : RSV400...1000P1A589 Governer no. : 0 421 833 449

Cust. part No. : 9275722

Customer—spec. information
Customer : LIEBHERR
Motor : D 9308 TI
Power KW : 330.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 105 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50Tolerance mm : + 1.50

Firing order : 1-8-7-2-6 :-3-5-4

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : \div 0.30

Check

tolerance "NW : \leftarrow 0.50

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm : 13.30 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 259.0

Tolerance cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : + 4.0

	1
Spreed	+ rack travel mm : 4.00
Tolerance	+ Rated speed rpm : 1065
cm3/1000 strokes : 5.0	+ Tolerance 1/min : + 15
tims 1000 strokes . 5.0	I roterance mini . 1 13
Check tolerance	Frack travel mm : 0.85
cm3/1000s. : 9.0	1
CM37 (UUU3. : 9.U	· ·
Dahad assaul man /00	+ Rated speed rpm : 1200
Rated speed rpm : 400	1 00
Dook Annual in my	+ rack travel mm : 4.00
Rack travel in mm: 4.95	+ Rated speed rpm : 1075
Tolerance mm : + 0.20	†
Del. quantity	†
cm3/1000 strokes : 25.0	
Tolerance	+ LOM IDLE
cm3/1000 strokes : +- 3.0	†
Check tolerance	† Setting point w/out bumper spring
cm3/1000s. : + 6.0	+
Spreed	+ Rated speed rpm : 400
Tolerance	+ rack travel mm : 3.75
cm3/1000 strokes : 6.0	+
Check tolerance	+ Testing:
cm3/1000s. : 10.0	+
	+ Rated speed rpm : 400
	+ rack travel mm : 4.95
(B) SETTING OF INJECTION PUMP	+ Tolerance mm : + 0.20
WITH GOVERNOR	+
	† rack travel mm : 2.00
	+ Rated speed rpm : 440
	+ Tolerance 1/min : + 30
GUIDE SLEEVE POSITION	+
_	+
governor spring	+ TORQUE CONTROL
pre-tension	†
click setting $x : 4.00$	+ Rated speed rpm : 900
	+ rack travel mm : 13.30
	+ Tolerance mm : + 0.05
FULL LOAD DELIVERY AT FULL LOAD STOP	†
	Rated speed rpm : 500
Rated speed rpm : 900	rack travel mm : 13.30
Aneroid pressure	+ Tolerance man : $+$ 0.05
hPa : 1200	†
Del. quantity	† ····
cm3/1000 strokes : 259.0	+ ANEROID/ALTITUDE
Tolerance	COMPENSATOR TEST
cm3/1000 strokes : + 1.0	†
Check tolerance	†
cm3/1000s. : +- 4.0	+ SETTING
Spreed	t
Tolerance	Rated speed rpm : 500
cm3/1000 strokes : 5.0	Pressure hPa : 1200
Check tolerance	rack travel mm : 13.30
cm3/1000s. : 9.0	Tolerance mm : + 0.05
-	†
	MEASUREMENT
RATED SPEED	†
· · · · · · · · · · · · · · · · · · ·	Pressure hPa :
rack travel mm : 12.30 -	Rated speed rpm : 500
000	1
Rated speed rpm : 990 -	rack travel mm : 11.50
Tolerance 1/min : +- 5	rack travel mm : 11.50 Tolerance mm : + 0.10

Rated speed rpm 500 900 Pressure hPa 12.30 rack travel mm Tolerance mm : **←** 0.05 Pressure hPa 008 11.80 rack travel mm Tolerance mm : + 0.10FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 1200 Rated speed rpm 500 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Aneroid pressure hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 217.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000S. 12.0 BREAKAWAY 12.30 Rack travel in mm: Rated speed rpm Tolerance 1/min STARTING FUEL DELIVERY 100 Rated speed rpm 20.50 rack travel mm Tolerance mm : + 0.50Del. quantity cm3/1000 strokes : 200.0 Tolerance cm3/1000 strokes : +- 10.0

Check tolerance cm3/1000s. : +- 14.0 LOW IDLE 400 Rated speed rpm rack travel mm 4.95 Tolerance mm : + 0.20Del. quantity 25.0 cm3/1000 strokes : Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0 •

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.05.95 Test oil : ISO 4113

Combination No. : 0 402 746 954

Injection pump

Pump designation : PES6P120A720RS7301 EP type number : 0 412 726 900

Governor

Governer design. : RQV300...1050PA1090K

Governer no. : 0 421 815 362

Cust. part No. : 9275449

Customer—spec. information
Customer : LIEBHERR
Motor : D 926 TI
Power KW : 230.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Tolerance l/h: + 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.75
Tolerance mm : + 0.05
Check

Lneck

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.30

Check

tolerance °NW : + 0.50

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 14.35 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 240.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	Rated speed rpm : 1320 guide sleeve travel mm : 13.50 Tolerance mm : + 0.50
cm3/1000S. : 9.0 Rated speed rpm : 350	GUIDE SLEEVE POSITION
Rack travel in mm: 6.10	Rated speed rpm : 1170
Tolerance mm : +- 0.20 Del. quantity	Rack travel in mm: 13.00 Tolerance mm: + 1.30
cm3/1000 strokes : 25.0 Tolerance	
cm3/1000 strokes : +- 3.0 Check tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000S. : + 6.0 Spreed Tolerance	Rated speed rpm : 1050 Aneroid pressure hPa : 1600
cm3/1000 strokes : 6.0 Check tolerance	Del. quantity cm3/1000 strokes : 240.0
cm3/1000s. : 10.0	Tolerance + cm3/1000 strokes : +- 1.0
(B) SETTING OF INJECTION PUMP	Check tolerance - cm3/1000s. : +- 4.0
WITH GOVERNOR	Spreed Tolerance
GUIDE SLEEVE TRAVEL	cm3/1000 strokes : 5.0 Check tolerance
Rated speed rpm : 300	cm3/1000s. : 9.0
guide sleeve	+
travel mm : 1.69 Tolerance mm : + 0.15	CONTROL LEVER
Rated speed rpm : 1117 guide sleeve	control lever position degree : 121.0
travel mm : 10.38	tolerance degree : + 4.0
Tolerance mm : + 0.20	RATED SPEED
Rated speed rpm : 746 guide sleeve	track travel mm : 13.35
travel mm : 6.20	Rated speed rpm : 1080
Tolerance mm : + 0.25	+ Tolerance 1/min : +- 5
Rated speed rpm : 353 guide sleeve	+ rack travel mm : 4.00 + Rated speed rpm : 1180
travel mm : 2.45 Tolerance mm : + 0.25	Tolerance 1/min : + 15
Rated speed rpm : 403	rack travel mm : 0.50 Tolerance mm : + 0.50
guide sleeve	Rated speed rpm : 1300
travel mm : 3.18 Tolerance mm : +- 0.25	Ŧ
Rated speed rpm : 450 guide sleeve	LOW IDLE
travel mm : 3.66	t control lever
Tolerance mm : +- 0.25	position degree : 79.0

tolerance degree : + 4.0	+ Rated speed rpm : 1050
Testing:	Pressure hPa : 800 rack travel mm : 13.75
Dated around non 1 750	
Rated speed rpm : 350	Tolerance mm : + 0.05
rack travel mm : 6.10 Tolerance mm : + 0.10	† D
ioterance mm : +- U.1U	Pressure hPa : 650 rack travel mm : 12.95
	+ rack travel mm : 12.95
Rated speed rpm : 250	+ Tolerance mm : + 0.10
	†
CRT mm min. :> 9.10	
	+ START CUT-OUT
Rated speed rpm : 475	†
	+ Rated speed rpm :> 100
	Rated speed rpm : < 270
TORQUE CONTROL	†
	+ Check
Rated speed rpm : 1050	+ speed 1/min : > 80
rack travel mm : 14.35	
Tolerance mm : \leftarrow 0.05	+ speed 1/min : < 290
	}
Rated speed rpm : 950	
rack travel mm : 13.85	+ FUEL DELIVERY CHARACTERISTICS
Tolerance mm : $+-0.10$	}
	+ Aneroid pressure
Rated speed rpm : 900	+ hPa : 1600
rack travel mm : 13.70	Rated speed rpm : 800
rack travel mm : 13.70 Tolerance mm : + 0.10	Del. quantity
. 5001 41105 11111	cm3/1000 strokes : 219.0
Rated speed rpm : 800	Aneroid pressure hPa : 1600 Rated speed rpm : 800 Del. quantity cm3/1000 strokes : 219.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Aneroid pressure hPa : 1600 Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 204.0 Tolerance
rack travel mm : 13.35	cm3/1000 strokes : +- 3.0
Tolerance mm : + 0.10	+ Check tolerance
TOTAL MAIN	+ cm3/1000s. : + 6.0
Pated speed rom · 600	
Rated speed rpm : 600 rack travel mm : 12.85 Tolerance mm : +- 0.10	Aneroid pressure
Tolerance mm : +- 0.10	+ hPa : 1600
TOTEL GLICE IMM	Rated speed rpm : 500
Rated speed rpm : 500	+ Del. quantity
rack travel mm : 12.85	- cm3/1000 strokes : 204.0
Tolerance mm : + 0.10	Tolerance
rocerance min . 4- 0.10	cm3/1000 strokes : + 3.0
ANEROID/ALTITUDE	- cm3/1000s. : +- 6.0
COMPENSATOR TEST	T UID/ 10003
COMPENSATOR TEST	Aneroid pressure
	+ hPa : -
SETTING	Rated speed rpm : 600
251 1 TIAG	+ Del. quantity
Rated speed rpm : 1050	- cm3/1000 strokes : 185.0
Rated speed rpm : 1050 Pressure hPa : 1600	Tolerance
rack travel mm : 14.35	cm3/1000 strokes : + 1.0
Tolerance mm : +- 0.05	Check tolerance
Toterance inii . +- 0.03	T check totel ance : + 4.0
MEACHDEMENT	+ Spreed
MEASUREMENT	
Procesure has	+ Tolerance + cm3/1000 strokes : 8.0
Pressure hPa : -	• CHOZ BURU STEOKES 2 O.31
Dated around non . 1050	
Rated speed rpm : 1050	+ Check tolerance
Rated speed rpm : 1050 rack travel mm : 11.90 Tolerance mm : + 0.10	

BREAKAWAY

Rack travel in mm: 13.35
Rated speed rpm: 1080
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 12.85 Tolerance mm : + 0.20 Del. quantity

cm3/1000 strokes : 155.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm 350 rack travel mm 6,10 C 20 Tolerance mm Del. quantity cm3/1000 strokes : 25.0 Tolerance 3.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 31.05.95 Test oil : ISO 4113

Combination No. : 0 402 746 954A

Injection pump

Pump designation : PES6P120A720RS7301 EP type number : 0 412 726 900

Governor

Governer design. : RQV300...1050PA1090K

Governer no. : 0 421 815 362

Cust. part No. : 9275449

Customer-spec. information Customer : LIEBHERR : D 926 TI Motor Power KW : 230.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : \leftarrow 0.1

Overflow quantity

min. L/h : 115 Tolerance l/h: + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0

x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm : 4.75 : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: +- 0.30 Tolerance

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 14.35 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 240.0

Tolerance cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 4.0	guide sleeve travel mm : 3.66 Tolerance mm : +- 0.25
Spreed Tolerance	Rated speed rpm : 1320
cm3/1000 strokes : 5.0	guide sleeve travel mm : 13.50
Check tolerance cm3/1000s. : 9.0	Tolerance mm : +- 0.50
Rated speed rpm : 350	GUIDE SLEEVE POSITION
Rack travel in mm: 6.10 Tolerance mm: + 0.20	Rated speed rpm : 1170
Del. quantity	Rack travel in mm : 13.00
cm3/1000 strokes : 25.0	Tolerance mm : +- 1.30
cm3/1000 strokes : +- 3.0	
Check tolerance cm3/1000s. : + 6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Spreed	Rated speed rpm : 1050
Tolerance + cm3/1000 strokes : 6.0 +	Aneroid pressure hPa : 1600
Check tolerance	Del. quantity
cm3/1000s. : 10.0	cm3/1000 strokes : 240.0 Tolerance
 	cm3/1000 strokes : +- 1.0
(B) SETTING OF INJECTION PUMP	Check tolerance
WITH GOVERNOR	cm3/1000s. : +- 4.0 Spreed
GUIDE SLEEVE TRAVEL	Tolerance cm3/1000 strokes : 5.0
Rated speed rpm : 300 +	Check tolerance cm3/1000s. : 9.0
guide sleeve +	CHD7 10003 7.0
travel mm : 1.69 +	
Tolerance mm : + 0.15	CONTROL LEVER
Rated speed rpm : 1117	
guide sleeve	control lever
travel mm : 10.38 + Tolerance mm : + 0.20 +	<pre>position degree : 121.0 tolerance degree : +- 4.0</pre>
Total differential . 7 - 0.20	toterance degree 4.0
Rated speed rpm : 746 + guide sleeve +	RATED SPEED
travel mm : 6.20 +	rack travel mm : 13.35
Tolerance mm : + 0.25 +	Rated speed rpm : 1080
Rated speed rpm : 353	Tolerance 1/min : +- 5
Rated speed rpm : 353 + guide sleeve +	1 / 20
	rack travel mm : 4.111
travel mm : 2.45 +	rack travel mm : 4.00 Rated speed rpm : 1180
travel mm : 2.45 Tolerance mm : + 0.25	rack travel mm : 4.00 Rated speed rpm : 1180 Tolerance 1/min : +- 15
1	Rated speed rpm : 1180 Tolerance 1/min : +- 15 rack travel mm : 0.50
Tolerance mm : +- 0.25 Rated speed rpm : 403 guide sleeve	Rated speed rpm : 1180 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Tolerance mm : +- 0.25 Rated speed rpm : 403 guide sleeve travel mm : 3.18	Rated speed rpm : 1180 Tolerance 1/min : +- 15 rack travel mm : 0.50
Tolerance mm : +- 0.25 Rated speed rpm : 403 guide sleeve	Rated speed rpm : 1180 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Tolerance mm : +- 0.25 Rated speed rpm : 403 guide sleeve travel mm : 3.18	Rated speed rpm : 1180 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50

control lever position degree tolerance degree	: 79.0 : +- 4.0	Rated speed rpm : 1050 rack travel mm : 11.90 Tolerance mm : + 0.10 Rated speed rpm : 1050
Testing:		Pressure hPa : 800 rack travel mm : 13.75
Rated speed rpm rack travel mm Tolerance mm	: 6.10	rack travel mm : 13.75 Tolerance mm : + 0.05 Pressure hPa : 650 rack travel mm : 12.95
Rated speed rpm	: 250	rack travel mm : 12.95 Tolerance mm : + 0.10
CRT mm min.	: > 9.10	START CUT-OUT
Rated speed rpm	: 475	Rated speed rpm : > 100 Rated speed rpm : < 270
TORQUE CONTROL		+
Rated speed rpm rack travel mm	: 1050 : 14.35	+ Check + speed 1/min :> 80 + Check
Tolerance mm	: +- 0.05	speed 1/min : < 290
Rated speed rpm rack travel mm Tolerance mm	: 950 : 13.85 : + 0.10	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm rack travel mm Tolerance mm	: 13.70	+ Aneroid pressure + hPa : 1600 + Rated speed rpm : 800 + Del. quantity
Rated speed rpm		- cm3/1000 strokes : 219.0 - Tolerance
rack travel mm Tolerance mm	: 13.35 : + 0.10	cm3/1000 strokes : +- 3.0 Check tolerance
Rated speed rpm		cm3/1000s. : +- 6.0
rack travel mm Tolerance mm	: 12.85 : ← 0.10	+ Aneroid pressure + hPa : 1600 + Rated speed rpm : 500
Rated speed rpm rack travel mm	: 12.85	Del. quantity cm3/1000 strokes : 204.0
Tolerance mm	: ← 0.10	+ Tolerance + cm3/1000 strokes : + 3.0 + Check tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		cm3/1000s. : + 6.0
		Aneroid pressure hPa : -
SETTING	. 4050	Rated speed rpm : 600 Del. quantity 185.0
Rated speed rpm Pressure hPa rack travel mm	: 1050 : 1400 : 14.35	+ cm3/1000 strokes : 185.0 + Tolerance + cm3/1000 strokes : + 1.0
Tolerance mm	: + 0.05	Check tolerance + cm3/1000s. : + 4.0
MEASUREMENT		Spreed Tolerance
Pressure hPa	: -	+ cm3/1000 strokes : 8.0

Check tolerance cm3/1000s. 12.0 **BREAKAWAY** Rack travel in mm : 13.35 Rated speed rpm : 1080 Tolerance 1/min : +-STARTING FUEL DELIVERY 100 Rated speed rpm 12.85 rack travel mm Tolerance mm : +- 0.20 Del. quantity cm3/1000 strokes : 155.0 Tolerance cm3/1000 strokes : \leftarrow 10.0 Check tolerance : + 14.0 cm3/1000s. LOW IDLE 350 Rated speed rpm rack travel mm 6.10 : + 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 25.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 26.06.95 Edition Test oil : ISO 4113

Combination No. : 0 403 244 032

Injection pump

Pump designation : PES4MW100/720RS1519

: -2

EP type number : 0 413 204 017

Governor

Governer design. : RQV300...1300MW132

: -1

Governer no. : 0 420 083 292

Cust. part No. : 0240741102

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance *C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

208.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 Tolerance mm : + 0.05 Check tolerance mm : \leftarrow 0.10

Rack travel in mm: 20.00 Tolerance mm : +- 1.00

: 1-3-4-2 Firing order

Phasing : 0-90-180-270 Tolerance : +- 0.50

Check

tolerance "NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.60 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 123.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

: +- 4.0 cm3/1000s.

Spreed

Tolerance

Check tolerance	Î.
cm3/1000s. : 8.0	Rated speed rpm : 1690
	+ guide sleeve
Rated speed rpm : 300	† travel mm : 13.50
	+ Tolerance mm : + 0.50
Rack travel in mm : 3.90	+
Tolerance mm : +- 0.10	
Del. quantity	+ GUIDE SLEEVE POSITION
cm3/1000 strokes : 12.0	†
Tolerance	Rated speed rpm : 1500
cm3/1000 strokes : + 2.0	Cook travel in many 40,00
Check tolerance cm3/1000s. : +- 4.5	+ Rack travel in mm : 10.00
Spreed 4.3	† Tolerance mm : + 2.00
Tolerance	I
cm3/1000 strokes : 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	TOLE FOUND RELITERAL ME LOCK FOUND STOL
cm3/1000s. : 4.0	Rated speed rpm : 1300
	+ Aneroid pressure
	+ hPa : 1200
(B) SETTING OF INJECTION PUMP	Del. quantity
WITH GOVERNOR	+ cm3/1000 strokes : 123.0
	+ Tolerance
	+ cm3/1000 strokes : + 1.0
GUIDE SLEEVE TRAVEL	+ Check tolerance
	+ cm3/100Gs. : $+$ 4.0
Rated speed rpm : 300	+ Spreed
guide sleeve	+ Tolerance
travel mm : 0.91	+ cm3/1000 strokes : 5.0
Tolerance mm : + 0.25	+ Check tolerance + cm3/1000s. : 8.0
Rated speed rpm : 1354	+ cm3/1000s. : 8.0
guide sleeve	I
travel mm : 7.77	
Tolerance mm : +- 0.25	+ CONTROL LEVER
TO COT GITTO THE TOTAL STATE OF THE STATE OF	-
Rated speed rpm : 1150	+ control lever
guide sleeve	position degree : 116.0
travel mm : 5.95	+ tolerance degree : +- 4.0
Tolerance mm : + 0.25	+
	+ RATED SPEED
Rated speed rpm : 629	†
guide sleeve	+ rack travel mm : 12.60
travel mm : 3.15	+ Rated speed rpm : 1345 + Tolerance 1/min : + 5
Tolerance mm : + 0.25	† Tolerance 1/min : ← 5
Rated speed rpm : 679	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1460
travel mm : 3.45	+ Tolerance 1/min : + 15
Tolerance mm : + 0.25	Total and the transfer of the total and the
TO COT CITY TO THE TOTAL TO THE	+ rack travel mm : 0.50
Rated speed rpm : 820	+ Tolerance mm : + 0.50
guide sleeve	+ Rated speed rpm : 1550
travel mm : 4.09	+
Tolerance mm : + 0.25	+
Rated speed rpm : 1596	+ LOW IDLE
guide sleeve	†
travel mm : 12.00	†
Tolerance mm : + 0.25	†

control loves	
control lever position degree tolerance degree	: 71.0 : + 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 3.90 : + 0.10
Rated speed rpm	: 200
CRT mm min.	: > 4.50
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm	
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 13.60 : +- 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm	: - : 500 : +- 0.10
Pressure hPa Rated speed rpm Tolerance mm	
Pressure hPa Rated speed rpm Tolerance mm Rated speed rpm Pressure hPa rack travel mm	: +- 0.10
MEASUREMENT Pressure hPa Rated speed rpm Tolerance mm Rated speed rpm Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm	: +- 0.10 : 500 : 600 : 2.00
Pressure hPa Rated speed rpm Tolerance mm Rated speed rpm Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm	: + 0.10 : 500 : 600 : 2.00 : + 0.10 : 350 : 0.50

Check speed 1/min Check speed 1/min	: > 80 : < 220
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	
cm3/1000 strokes	: 6.0
Check tolerance cm3/1000s.	: 9.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 12.60 : 1345 : + 5
STARTING FUEL DEL	IVERY
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 150.0
LOW IDLE	
Rated speed rpm rack travel mm	: 300 : 3.90

Tolerance mm	: +-	0.10
Del. quantity cm3/1000 strokes Tolerance	:	12.0
cm3/1000 strokes	: +-	2.0
Check tolerance cm3/1000s. Spreed	: +-	4.5
Tolerance cm3/1000 strokes Check tolerance	:	2.0
cm3/1000s.	:	4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 26.06.95 Edition : ISO 4113 Test oil

Combination No. : 0 403 244 033

Injection pump

Pump designation : PES4MW100/720RS1519

: -2

EP type number : 0 413 204 017

Governor

Governer design. : RQV300...1300MW132

: -1

: 0 420 083 292 Governer no.

Cust. part No. : 0240748202

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm : 4.55 : +- 0.05 Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 20.00 Tolerance mm : +- 1.00

Firing order : 1-3-4-2

: 0-90-180-270 Phasing Tolerance : **←** 0.50

Check

: +- 0.75 tolerance °NW

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.60 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 123.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

: +- 4.0 cm3/1000s.

Spreed

Tolerance

Charle talanana		1
Check tolerance cm3/1000s.	: 8.0	Rated speed rpm : 1690
CMS/10003.	. 0.0	guide sleeve
Ontrol annual man	. 700	
Rated speed rpm	: 300	
Dool, Americal Science	- 7.00	Tolerance mm : +- 0.50
Rack travel in m		
Tolerance mm	: + 0.10	OUTDE OF EERS DOOTTEON
Del. quantity	42.0	GUIDE SLEEVE POSITION
cm3/1000 strokes	: 12.0	4500
Tolerance	. 22	Rated speed rpm : 1500
cm3/1000 strokes	: +- 2.0	10.00
Check tolerance	. ,	Rack travel in mm: 10.00
cm3/1000s.	: + 4.5	- Tolerance mm : +- 2.00
Spreed	-	
Tolerance	2.0	CHILL LOAD BELTHERY AT THE LOAD OTOD
cm3/1000 strokes	: 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance		
cm3/1000S.	: 4.0	- Rated speed rpm : 1300
	-	Aneroid pressure
(D) A ===================================	Ulmarran Suna	hPa : 1200
(B) SETTING OF I	NJECTION PUMP	- Del. quantity
WITH GOVERNOR	-	cm3/1000 strokes : 123.0
	7	Tolerance
01755 015515 554	/i=1	cm3/1000 strokes : +- 1.0
GUIDE SLEEVE TRAN	VEL 7	Check tolerance
	700	- cm 3/1000s. : + 4.0
Rated speed rpm	: 300	Spreed
guide sleeve	7 04	Tolerance
travel mm	: 0.91	cm3/1000 strokes : 5.0
Tolerance mm	: +- 0.25	Check tolerance
	475,	- cm3/1000s. : 8.0
Rated speed rpm	: 1354	
guide sleeve		
travel mm	7.77	CONTROL 4 EVED
Tolerance mm	: +- 0.25	- CONTROL LEVER
Data damandama	. 4450	- - control lever
Rated speed rpm	: 1150	
guide sleeve travel mm	: 5.95	- position degree : 116.0 - tolerance degree : +- 4.0
		toterance degree : + 4.0
Tolerance mm	; - 0.25	- RATED SPEED
Rated speed rpm	: 629	- RATED SPEED
guide sleeve	. 029	- rack travel mm : 12.60
travel mm	: 3.15	- Rated speed rpm : 1345
Tolerance mm	: + 0.25	Tolerance 1/min : + 5
toterance min	1	- roter differ than 1
Rated speed rpm	: 679	rack travel mm : 4.00
guide sleeve	. 0//	- Rated speed rpm : 1460
travel mm	: 3.45	- Tolerance 1/min : +- 15
Tolerance mm	: + 0.25	- Total ance Tribities 1
locel diffe this	. ' 0.2	rack travel mm : 0.50
Rated speed rpm	: 820	- Tolerance mm : + 0.50
guide sleeve	· JEG	Rated speed rpm : 1550
travel mm	: 4.09	
Tolerance mm	: +- 0.25	
TO CET OF THE THE	I	
Rated speed rpm	: 1596	LOW IDLE
guide sleeve	1	The state of the s
travel mm	: 12.00	
Tolerance mm	: +- 0.25	•
. Jeon di jou inni	1	

control lever position degree tolerance degree	: 71.0 : + 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 3.90 : ← 0.10
Rated speed rpm	: 200
CRT mm min.	: > 4.50
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1300 : 13.60 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 600 : 13.60 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 13.60 : +- 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm Tolerance mm	: - : 500 : +- 0.10
Rated speed rpm	: 500
	: 600
Pressure hPa rack travel mm Tolerance mm	: 2.00 : +- 0.10
rack travel mm	: 2.00
rack travel mm Tolerance mm Pressure hPa rack travel mm	: 2.00 : + 0.10 : 350 : 0.50

Check speed 1/min Check speed 1/min	: > 80 : < 220
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 1200 : 600 : 121.0 : ← 2.0 : ← 5.0
cm3/1000 strokes	: 6.0
Check tolerance cm3/1000s.	: 9.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 12.60 : 1345 : + 5
STARTING FUEL DEL	IVERY
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
LOW IDLE	
Rated speed rpm rack travel mm	: 300 : 3.90

: +-	0.10
:	12.0
: +-	2.0
: +-	4.5
:	2.0
:	4.0
	: +- : +- : +-

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 26.04.95 Edition : ISO 4113 Test oil

Combination No. : 0 403 244 034

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0 413 204 018

Governor

Governer design. : RQV300...1300MW132

: -3

: 0 420 083 296 Governer no.

Cust. part No. : 0240740702

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 : +- 1.5 Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 Tolerance mm : + 0.50

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 20.00 Tolerance mm : \leftarrow 1.00

Firing order : 1-3-4-2

: 0-90-180-270 Phasing Tolerance : **←** 0.50

Check

tolerance "NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.15

Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : ← 3.0

Spreed Tolerance

Check tolerance		+
cm3/1000s.	: 7.0	Rated speed rpm : 1690
		+ guide steeve
Rated speed rpm	: 300	+ travel mm : 13.50
01 41	/ 00	→ Tolerance mm : + 0.50
Rack travel in m		†
Tolerance mm Del. quantity	: + 0.10	GUIDE SLEEVE POSITION
cm3/1000 strokes	: 12.0	I GOIDE SPEENE LOSTITOM
Tolerance	. 12.0	Rated speed rpm : 1500
cm3/1000 strokes	: +- 2.0	- 1300
Check tolerance		+ Rack travel in mm : 10.00
cm3/1000s.	: +- 4.5	+ Tolerance mm : + 2.00
Spreed		†
Tolerance		FILL LOAD DELTHEDY AT THE LOAD OFFI
cm3/1000 strokes Check tolerance	: 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: 4.0	Rated speed rpm : 1300
CIID7 10000.	• 4.0	+ Aneroid pressure
		+ hPa : 700
(B) SETTING OF I	NJECTION PUMP	Del. quantity
WITH GOVERNOR		+ cm3/1000 strokes : 87.0
		† Tolerance
GUIDE SLEEVE TRAN	JE1	+ cm3/1000 strokes : + 1.0 + Check tolerance
GOIDE STEENE INM	/EL	- cm3/1000s. : + 3.0
Rated speed rpm	: 300	+ Spreed
guide sleeve		+ Tolerance
travel mm	: 0.91	+ cm3/1000 strokes : 4.5
Tolerance mm	: +- 0.25	+ Check tolerance
0-4-44	47/5	+ cm3/1000s. : 7.0
Rated speed rpm guide sleeve	: 1345	Ĭ
travel mm	: 7.64	
Tolerance mm	: +- 0.25	CONTROL LEVER
		+
Rated speed rpm	: 1140	+ control lever
guide sleeve	5 00	+ position degree : 112.0
travel mm	: 5.88	tolerance degree : + 4.0
Tolerance mm	: +- 0.25	RATED SPEED
Rated speed rpm	: 629	T MATED STEED
guide sleeve	. 627	rack travel mm : 10.10
travel mm	: 3.15	Rated speed rpm : 1345
Tolerance mm	: +- 0.25	+ Tolerance 1/min : + 5
	170	1
Rated speed rpm	: 679	rack travel mm : 4.00 Rated speed rpm : 1435
guide sleeve travel mm	: 3.53	Tolerance 1/min : + 15
Tolerance mm	: +- 0.25	Total and Trimin
		+ rack travel mm : 0.50
Rated speed rpm	: 800	- Tolerance mm : + 0.50
guide sleeve		+ Rated speed rpm : 1550
travel mm	: 4.00	†
Tolerance mm	: + 0.25	İ
Rated speed rpm	: 1596	LOW IDLE
guide sleeve		+
travel mm	: 12.00	+
Tolerance mm	: +- 0.25	+

		+
control lever position degree tolerance degree		FUEL DELIVERY CHARACTERISTICS
Testing:		+ Aneroid pressure + hPa : 700
Rated speed rpm	: 300	Rated speed rpm : 750 Del. quantity
rack travel mm Tolerance mm	: 4.00	cm3/1000 strokes : 79.0 Tolerance
Rated speed rpm		+ cm3/1000 strokes : + 1.5 + Check tolerance
CRT mm min.		+ cm3/1000s. : + 4.0 + Spreed
		Tolerance cm3/1000 strokes : 6.0
TORQUE CONTROL		Check tolerance cm3/1000s. : 9.0
Rated speed rpm rack travel mm	: 1300 : 11.15	Aneroid pressure
Tolerance mm	: + 0.05	→ hPa : -
Rated speed rpm		+ Rated speed rpm : 500 + Del. quantity
rack travel mm Tolerance mm		+ cm3/1000 strokes : 67.0 + Tolerance
		<pre>+ cm3/1000 strokes : ← 1.0 + Check tolerance</pre>
ANEROID/ALTITUDE COMPENSATOR TEST		+ cm3/1000s. : +- 3.0
		BREAKAWAY
SETTING		‡
Rated speed rpm Pressure hPa	: 500 : 700	Rack travel in mm: 10.10 Rated speed rpm: 1345
rack travel mm Tolerance mm	: 11.15 : +- 0.05	Tolerance 1/min : + 5
MEASUREMENT		<u> </u>
Pressure hPa		STARTING FUEL DELIVERY
Rated speed rpm	: 500 : +- 0.10	Rated speed rpm : 100
Tolerance mm		+ Del. quantity + cm3/1000 strokes : 125.0
Rated speed rpm	: 500	+ Tolerance + cm3/1000 strokes : +- 5.0
	070	
Pressure hPa rack travel mm	: 230 : 0.20	+ Check tolerance + cm3/1000s. : + 8.0
		+ Check tolerance
rack travel mm	: 0.20	Check tolerance cm3/1000s. : + 8.0
rack travel mm Tolerance mm START CUT-OUT Rated speed rpm	: 0.20 : + 0.10 : > 100	Check tolerance cm3/1000s. : + 8.0 LOW IDLE
rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm	: 0.20 : + 0.10	Check tolerance cm3/1000s. : + 8.0 LOW IDLE Rated speed rpm : 300 rack travel mm : 4.00
rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm Check	: 0.20 : + 0.10 : > 100	Check tolerance cm3/1000s. : + 8.0 LOW IDLE Rated speed rpm : 300
rack travel mm Tolerance mm START CUT-OUT Rated speed rpm Rated speed rpm	: 0.20 : + 0.10 : > 100 : < 200	Check tolerance cm3/1000s. : + 8.0 LOW IDLE Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10

Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance cm3/1000s. : 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 26.04.95 Test oil : ISO 4113

Combination No. : 0 403 244 035

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0 413 204 018

Governor

Governer design. : RQV300...1300MW132

: -3

Governer no. : 0 420 083 296

Cust. part No. : 0240740802

Customer—spec. information Customer : MB-NFZ Motor : OM364LA Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05
Check

Lneck

tolerance mm : +- 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.15
Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed Tolerance

744000

Check tolerance cm3/1000s.	: 7.0 ‡	Rated speed rpm : 1690
Rated speed rpm	: 300	guide sleeve travel mm : 13.50
	+	Tolerance mm : +- 0.50
Rack travel in mo Tolerance mm		
Del. quantity cm3/1000 strokes	: 12.0	GUIDE SLEEVE POSITION
Tolerance	+	Rated speed rpm : 1500
cm3/1000 strokes Check tolerance	: + 2.0	Rack travel in mm : 10.00
cm3/1000s. Spreed	: + 4.5	Tolerance mm : +- 2.00
Tolerance cm3/1000 strokes	: 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	· •	
cm3/1000s.	: 4.0	Rated speed rpm : 1300 Aneroid pressure
(2)	+	hPa : 700
(B) SETTING OF IN	NJECTION PUMP	Del. quantity cm3/1000 strokes : 87.0
	+	Tolerance
GUIDE SLEEVE TRAN	JEI I	cm3/1000 strokes : +- 1.0 Check tolerance
	<u> </u>	cm3/1000s. : + 3.0
Rated speed rpm guide sleeve	: 300	Spreed Tolerance
travel mm	: 0.91	cm3/1000 strokes : 4.5
Tolerance min	: +- 0.25	Check tolerance
Rated speed rpm	: 1345	cm3/1000s. : 7.0
guide sleeve	. 1343	
travel mm	: 7.64	
Tolerance mm	: ← 0.25	CONTROL LEVER
Rated speed rpm	: 1140	control lever
guide sleeve travel mm	: 5.88	position degree : 112.0 tolerance degree : +- 4.0
Tolerance mm	: + 0.25	toterance degree . +- 4.0
Data dama adama		RATED SPEED
Rated speed rpm guide sleeve	: 629	rack travel mm : 10.10
travel mm	: 3.15	Rated speed rpm : 1345
Tolerance mm	: + 0.25	Tolerance 1/min : +- 5
Rated speed rpm	: 679	rack travel mm : 4.00
guide sleeve	. 7.57	Rated speed rpm : 1435
travel mm Tolerance mm	: 3.53 : + 0.25	Tolerance 1/min : + 15
	+	rack travel mm : 0.50
Rated speed rpm guide sleeve	: 800	Tolerance mm : + 0.50 Rated speed rpm : 1550
travel mm	: 4.00	nacca opeca i pin i 1990
Tolerance mm	: ← 0.25	
Rated speed rpm guide sleeve	: 1596	LOW IDLE
travel mm	: 12.00	
Tolerance mm	: + 0.25	

	1	
control lever position degree tolerance degree	: 70.0 : + 4.0	FUEL DELIVERY CHARACTERISTICS Aneroid pressure
Testing:	Ţ	hPa : 700 Rated speed rpm : 750
Rated speed rpm rack travel mm		Del. quantity cm3/1000 strokes : 79.0
Tolerance mm		Tolerance cm3/1000 strokes : + 1.5
Rated speed rpm	: 200	Check tolerance cm3/1000s. : +- 4.0
CRT mm min.	: > 4.50	Spreed Tolerance
TORQUE CONTROL	. +	cm3/1000 strokes : 6.0 Check tolerance
Rated speed rpm		cm3/1000s. : 9.0
rack travel mm Tolerance mm	: 11.15 : + 0.05	Aneroid pressure hPa : - Rated speed rpm : 500
Rated speed rpm rack travel mm		Del. quantity cm3/1000 strokes : 67.0
Tolerance mm		Tolerance cm3/1000 strokes : +- 1.0
ANEROID/ALTITUDE COMPENSATOR TEST		Check tolerance cm3/1000s. : +- 3.0
SETTING	1	BREAKAWAY
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 11.15 : + 0.05	Rack travel in mm : 10.10 Rated speed rpm : 1345 Tolerance 1/min : + 5
MEASUREMENT	+	STARTING FUEL DELIVERY
Pressure hPa Rated speed rpm	500	Rated speed rpm : 100
Tolerance mm	: +- 0.10	Del. quantity cm3/1000 strokes : 125.0
Rated speed rpm Pressure hPa	: 500	Tolerance cm3/1000 strokes : +- 5.0 Check tolerance
rack travel mm Tolerance mm	: 0.20 : + 0.10	cm3/1000s. : +- 8.0
START CUT-OUT	‡	LOW IDLE
Rated speed rpm Rated speed rpm	: > 100 : < 200	Rated speed rpm : 300
Check speed 1/min	:> 80	rack travel mm : 4.00 Tolerance mm : +- 0.10 Del. quantity
Check		am7/1000 atralian . 10.0
speed 1/min	: < 220	cm3/1000 strokes : 12.0

Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed
Tolerance
cm3/1000 strokes : 2.0
Check tolerance
cm3/1000s. : 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 28.04.95 Edition : ISO 4113 Test oil

Combination No. : 0 403 244 036

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0 413 204 018

Governor

Governer design. : RQV300...1300MW132

: -5

Governer no. : 0 420 083 308

Cust. part No. : 0240740902

Customer-spec. information Customer : MB-NFZ

Motor : 0M364LA Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : + 0.50

Check

tolerance "NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.15 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 87.0

Tolerance cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance

Check tolerance	<u> </u>	
cm3/1000s.	: 7.0	Rated speed rpm : 1690
	+	guide sleeve
Rated speed rpm	: 300 +	travel mm : 13.50
	+	Tolerance mm : +- 0.50
Rack travel in mm	: 4.00	
Tolerance mm		
Del. quantity		GUIDE SLEEVE POSITION
cm3/1000 strokes	: 12.0	COINE OFFERE LOGILION
Tolerance	12.0	Rated speed rpm : 1500
cm3/1000 strokes	· + 20 T	Rated speed rpm . 1900
Check tolerance	· + 2.0	Book through in man a 10 00
	T	Rack travel in mm: 10.00
cm3/1000s.	: + 4.5	Tolerance mm : + 2.00
Spreed	†	
Tolerance	<u> </u>	
cm3/1000 strokes	: 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	. <u> </u>	
cm3/1000\$.	: 4.0	Rated speed rpm : 1300
	+	Aneroid pressure
	+	hPa : 700
(B) SETTING OF IN.	JECTION PUMP	Del. quantity
WITH GOVERNOR	1	cm3/1000 strokes : 87.0
	1	Tolerance
		cm3/1000 strokes : + 1.0
GUIDE SLEEVE TRAVE	=1 1	Check tolerance
GOIDE SEEEAE WASE		cm3/1000s. : +- 3.0
Poted speed nom	: 300	Spreed
Rated speed rpm	. 300	
guide sleeve		Tolerance
travel mm	: 0.91	cm3/1000 strokes : 4.5
Tolerance mm	: + 0.25 +	Check tolerance
	+	cm3/1000s. : 7.0
Rated speed rpm	: 1353	
guide sleeve	+	
travel mm	: 7.76	
Tolerance mm	: ← 0.25 +	CONTROL LEVER
	+	
Rated speed rpm	: 1140	control lever
guide sleeve	<u> </u>	position degree : 112.0
travel mm	: 5.88	tolerance degree : + 4.0
Tolerance mm	: + 0.25	-
	1	RATED SPEED
Rated speed rpm	: 629	
guide steeve	1	rack travel mm : 10.10
travel mm	: 3.15	Rated speed rpm : 1345
Tolerance mm	: + 0.25	Tolerance 1/min : +- 5
TOTAL TOTAL TIES	1	Total dide 17 million 1
Batad speed nom	: 679	rack travel mm : 4.00
Rated speed rpm	• 0/7	
guide sleeve	7.57	
travel mm	3.53	Tolerance 1/min : + 15
Tolerance mm	: + 0.25	0.50
	<u> </u>	rack travel mm : 0.50
Rated speed rpm	: 800 +	Tolerance mm : + 0.50
guide sleeve	+	Rated speed rpm : 1550
travel mm	: 4.00 +	
Tolerance mm	: + 0.25	
	+	
Rated speed rpm	: 1596	LOW IDLE
guide sleeve	+	
travel mm	: 12.00	
Tolerance mm	: +- 0.25 	

		+
control lever position degree tolerance degree		FUEL DELIVERY CHARACTERISTICS
Testing:		+ Aneroid pressure + hPa : 700 + Rated speed rpm : 750
Rated speed rpm rack travel mm Tolerance mm		+ Rated speed rpm : 750 + Del. quantity + cm3/1000 strokes : 79.0 + Tolerance
Rated speed rpm		cm3/1000 strokes : + 1.5
CRT mm min.	: > 4.50	cm3/1000s. : + 4.0 Spreed Tolerance
TORQUE CONTROL		cm3/1000 strokes : 6.0 Check tolerance
Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 11.15 : + 0.05 : 750	Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 67.0 Tolerance cm3/1000 strokes : + 1.0
ANEROID/ALTITUDE COMPENSATOR TEST		+ Check tolerance - cm3/1000s. : +- 3.0
		+ BREAKAWAY
SETTING		
SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 700	Rack travel in mm: 10.10 Rated speed rpm: 1345 Tolerance 1/min: + 5
Rated speed rpm Pressure hPa rack travel mm	: 700 : 11.15	Rack travel in mm : 10.10 Rated speed rpm : 1345
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 700 : 11.15	Rack travel in mm : 10.10 Rated speed rpm : 1345 Tolerance 1/min : + 5 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity
Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa Rated speed rpm	: 700 : 11.15 : + 0.05	Rack travel in mm : 10.10 Rated speed rpm : 1345 Tolerance 1/min : + 5 STARTING FUEL DELIVERY Rated speed rpm : 100
Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa Rated speed rpm Tolerance mm	: 700 : 11.15 : + 0.05 : + 0.05	Rack travel in mm : 10.10 Rated speed rpm : 1345 Tolerance 1/min : + 5 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 125.0 Tolerance
Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa Rated speed rpm Tolerance mm Rated speed rpm Pressure hPa rack travel mm	: 700 : 11.15 : ← 0.05 : ← 0.05 : ← 0.10 : 500 : 230 : 0.20	Rack travel in mm : 10.10 Rated speed rpm : 1345 Tolerance 1/min : + 5 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 125.0 Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 8.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa Rated speed rpm Tolerance mm Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 700 : 11.15 : ← 0.05 : ← 0.05 : ← 0.10 : 500 : 230 : 0.20	Rack travel in mm: 10.10 Rated speed rpm: 1345 Tolerance 1/min: + 5 STARTING FUEL DELIVERY Rated speed rpm: 100 Del. quantity cm3/1000 strokes: 125.0 Tolerance cm3/1000 strokes: + 5.0 Check tolerance cm3/1000s. : + 8.0 LOW IDLE Rated speed rpm: 300
Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa Rated speed rpm Tolerance mm Rated speed rpm Pressure hPa rack travel mm Tolerance mm START CUT-OUT	: 700 : 11.15 : + 0.05 : + 0.05 : 500 : + 0.10 : 500 : 230 : 0.20 : + 0.10	Rack travel in mm: 10.10 Rated speed rpm: 1345 Tolerance 1/min: + 5 STARTING FUEL DELIVERY Rated speed rpm: 100 Del. quantity cm3/1000 strokes: 125.0 Tolerance cm3/1000 strokes: + 5.0 Check tolerance cm3/1000s. : + 8.0

Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed
Tolerance
cm3/1000 strokes : 2.0
Check tolerance
cm3/1000s. : 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 12.07.95 Test oil : ISO 4113

Combination No. : 0 403 244 036A

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0 413 204 018

Governor

Governer design. : RQV300...1300MW132

: -5

Governer no. : 0 420 083 308

Cust. part No. : 0240740902

Customer—spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05
Check

Check

tolerance mm : +- 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270
Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1270

Rack travel in mm: 11.15
Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/iCCO strokes : 4.5

Check tolerance	+	
cm3/1000s.	: 7.0	Rack travel in mm : 10.00 Tolerance mm : +- 2.00
Rated speed rpm	: 300	Total alice inii . T. 2.00
Rack travel in mm	n: 4.00	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance mm	: ← 0.10 }	
Del. quantity	: 12.0	Rated speed rpm : 1270
cm3/1000 strokes Tolerance	: 12.0	Aneroid pressure hPa : 700
cm3/1000 strokes	: + 2.0 +	Del. quantity
Check tolerance	+	cm3/1000 strokes : 87.0
cm3/1000s. Spreed	: +- 4.5	Tolerance cm3/1000 strokes : +- 1.0
Tolerance	Ţ	Check tolerance
cm3/1000 strokes	: 2.0	$cm3/1000s.$: \leftarrow 3.0
Check tolerance	†	Spreed
cm3/1000s.	: 4.0	Tolerance cm3/1000 strokes : 4.5
	1	Check tolerance
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	cm3/1000S. : 7.0
	+	
GUIDE SLEEVE TRAV	EL	CONTROL LEVER
Rated speed rpm	: 300	control lever
guide sleeve	+	position degree : 111.0
travel mm	: 0.91	tolerance degree : + 4.0
Tolerance mm	: +- 0.20	RATED SPEED
Rated speed rpm	: 1353	WHEN OF LED
guide sleeve	+	rack travel mm : 10.10
travel mm	: 7.02 + : + 0.15 +	Rated speed rpm : 1310 Tolerance 1/min : +- 10
Tolerance mm	: 0.15	Toterance Timin : +- Tu
Rated speed rpm	: 1090	rack travel mm : 4.00
guide steeve	+	Rated speed rpm : 1445
travel mm Tolerance mm	: 5.21 + 0.25 +	Tolerance 1/min : + 5
iotei dilice iizii	1	rack travel mm : 0.50
Rated speed rpm	: 790	Tolerance mm : +- 0.50
guide sleeve	: 3.98	Rated speed rpm : 1550
travel mm Tolerance mm	: + 0.25	
10.01.01.00	+	
Rated speed rpm	: 1759	LOW IDLE
guide sleeve travel mm	: 12.00	
Tolerance mm	: + 0.25	control lever
	}	position degree : 74.0
Rated speed rpm	: 1870 +	tolerance degree : +- 4.0
guide sleeve travel mm	: 13.50	Testing:
Tolerance mm	: + 0.50	_
	+	Rated speed rpm : 300
CUIDE OF FELL DOCK	FIGN	rack travel mm : 4.00 Tolerance mm : + 0.10
GUIDE SLEEVE POSIT	I TOIA	Tolerance mm : +- 0.10
Rated speed rpm	: 1500	Rated speed rpm : 200

CRT mm min.	: > 4.70	Check tolerance cm3/1000s. : + 4.0 spreed
TORQUE CONTROL		Tolerance cm3/1000 strokes : 6.0
Rated speed rpm rack travel mm Tolerance mm	: 11.15	Check tolerance cm3/1000s. : 9.0 Aneroid pressure
Rated speed rpm rack travel mm Tolerance mm	: 11.15	<pre>hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 67.0</pre>
ANEROID/ALTITUDE COMPENSATOR TEST		Tolerance - cm3/1000 strokes : + 1.0 - Check tolerance - cm3/1000s. : + 3.0
SETTING		BREAKAWAY
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 700 : 11.15	Rack travel in mm: 10.10 Rated speed rpm: 1310 Tolerance 1/min: + 10
MEASUREMENT		Ŧ
Pressure hPa Rated speed rpm Tolerance mm		STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity
Rated speed rpm	: 500	+ cm3/1000 strokes : 125.0 + Tolerance
Pressure hPa rack travel mm Tolerance mm	: 230 : 0.20 : + 0.10	cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 8.0
START CUT-OUT		-
Rated speed rpm Rated speed rpm		LOW IDLE Rated speed rpm : 300
Check speed 1/min Check	: > 80	rack travel mm : 4.00 Tolerance mm : + 0.10 Del. quantity
speed 1/min	: < 220	cm3/1000 strokes : 12.0 Tolerance
FUEL DELIVERY CHA	ARACTERISTICS	- cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5
Aneroid pressure hPa Rated speed rpm	: 700 : 750	Spreed Tolerance cm3/1000 strokes : 2.0
Del. quantity cm3/1000 strokes Tolerance		Check tolerance cm3/1000s. : 4.0
cm3/1000 strokes	: + 1.5	<u>†</u>

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 28.04.95 Edition Test oil : ISO 4113

Combination No. : 0 403 244 038

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0 413 204 018

Governor

Governer design. : RQV300...1200MW132

: -7

: 0 420 083 312 Governer no.

Cust. part No. : 0250748302

Customer-spec. information Customer : MB-NFZ : 0M364LA Motor

Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 : + 0.05Tolerance mm

Check

: + 0.10 tolerance mm

Rack travel in mm: 20.00 : ← 1.00 Tolerance mm

Firing order : 1-3-4-2

: 0-90-180-270 Phasing Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 11.15 : +- 0.05

Tolerance mm

Del. quantity cm3/1000 strokes : 87.0

Tolerance cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed Tolerance

Check tolerance	1.	
cm3/1000s.	: 7.0	Rack travel in mm : 11.00
CHD7 10000.	·	Tolerance mm : +- 2.00
Rated speed rpm	: 300	TO COT GITTO MAIL
	+	
Rack travel in mo	n: 4.00 +	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance mm	: + 0.10 +	
Del. quantity	+	Rated speed rpm : 1200
cm3/1000 strokes	: 12.0	Aneroid pressure
Tolerance	t	hPa : 700
cm3/1000 strokes	: + 2.0	Del. quantity
Check tolerance cm3/1000s.	: +- 4.5	cm3/1000 strokes : 87.0 Tolerance
Spreed	· +- 4.3	cm3/1000 strokes : +- 1.0
Tolerance	I	Check tolerance
cm3/1000 strokes	: 2.0	cm3/1000s. : + 3.0
Check tolerance	1	Spreed
cm3/1000s.	: 4.0	Tolerance
	+	cm3/1000 strokes : 4.5
	+	Check tolerance
(B) SETTING OF IN	JECTION PUMP +	cm3/1000s. : 7.0
WITH GÖVERNOR	†	
	†	
CUIDE CLEDIE TOAN		CONTROL LEVED
GUIDE SLEEVE TRAV	EL	CONTROL LEVER
Rated speed rpm	: 300	control lever
guide sleeve	· 300	position degree : 114.0
travel mm	: 0.92	tolerance degree : +- 4.0
Tolerance mm	: + 0.25	totol alloc deglice to 110
	1	RATED SPEED
Rated speed rpm	: 1255	
guide sleeve	 	rack travel mm : 10.15
travel mm	: 7.93 +	Rated speed rpm : 1245
Tolerance mm	: ← 0.25 +	Tolerance 1/min : + 5
5.1	170	
Rated speed rpm	: 671	rack travel mm : 4.00
guide sleeve travel mm	: 3.58	Rated speed rpm : 1355 Tolerance 1/min : +- 15
Tolerance mm	: + 0.25	roterance min : + 15
TOTEL GITCE HAR	I	rack travel mm : 0.50
Rated speed rpm	: 721	Tolerance mm : + 0.50
guide sleeve	1	Rated speed rpm : 1450
travel mm	: 4.06	
Tolerance mm	: + 0.25 +	
	+	
Rated speed rpm	: 970 +	LOW IDLE
guide sleeve	†	
travel mm	: 5.51	sambani lawa
Tolerance mm	: ← 0.25	control lever
Dated aroad are	: 1690	position degree : 72.0 tolerance degree : +- 4.0
Rated speed rpm guide sleeve	· 1070	toteralite degree . The 4.0
travel mm	: 13.50	Testing:
Tolerance mm	: +- 0.50	, occuring.
. 4 501 41 100 1811	1	Rated speed rpm : 300
		rack travel mm : 4.00
GUIDE SLEEVE POSIT	rion +	Tolerance mm : +- 0.10
	+	
Rated speed rpm	: 1450 +	Rated speed rpm : 200

CRT mm min.	: > 4.50	+ Check tolerance - cm3/1000S. : + 4.0 - Spreed - Tolerance
TORQUE CONTROL		+ cm3/1000 strokes : 6.0
Rated speed rpm rack travel mm	: 11.15	theck tolerance cm3/1000s. : 9.0
Tolerance mm Rated speed rpm rack travel mm	: 750 : 11.15	Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity
Tolerance mm	: ← 0.10	cm3/1000 strokes : 67.0 + Tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		+ cm3/1000 strokes : + 1.0 + Check tolerance + cm3/1000s. : + 3.0
SETTING		BREAKAWAY
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 700 : 11.15	Rack travel in mm : 10.15 Rated speed rpm : 1245 Tolerance 1/min : +- 5
MEASUREMENT		†
Pressure hPa Rated speed rpm Tolerance mm		STARTING FUEL DELIVERY Rated speed rpm : 100
Rated speed rpm	: 500	+ Del. quantity + cm3/1000 strokes : 125.0 + Tolerance
Pressure hPa rack travel mm Tolerance mm	: 230 : 0.20 : + 0.10	cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 8.0
START CUT-OUT		-
Rated speed rpm Rated speed rpm		LOW IDLE Rated speed rpm : 300
Check speed 1/min Check	: > 80	rack travel mm : 4.00 Tolerance mm : +- 0.10 Del. quantity
speed 1/min	: < 220	+ cm3/1000 strokes : 12.0 + Tolerance
FUEL DELIVERY CHA	ARACTERISTICS	- + cm3/1000 strokes : +- 2.0 + Check tolerance - cm3/1000s. : +- 4.5
Aneroid pressure hPa	: 700	Spreed Tolerance
Rated speed rpm Del. quantity cm3/1000 strokes	: 750 : 79.0	+ cm3/1000 strokes : 2.0 + Check tolerance + cm3/1000s. : 4.0
Tolerance cm3/1000 strokes		

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 12.06.95 Test oil : ISO 4113

Combination No. : 0 403 244 040

Injection pump

Pump designation : PES4MW100/720RS1519

: -2

EP type number : 0 413 204 017

Governor

Governer design. : RQV300...1200MW132

: -8

Governer no. : 0 420 083 313

Cust. part No. : 0250748502

Customer—spec. information Customer : MB-NFZ Motor : OM364LA Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270
Tolerance : + 0.50

Check

tolerance "NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 13.90 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 126.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance

cm3/1000 strokes : 5.0

Check tolerance cm3/1000s. Rated speed rpm	: 8.0 : 300	Rack travel in mm: 10.00 Tolerance mm: + 2.00
Rack travel in mo	3.90 : +- 0.20	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes		Rated speed rpm : 1200 Aneroid pressure
Tolerance cm3/1000 strokes	•	hPa : 1400 Del. quantity
Check tolerance cm3/1000s.	: +- 4.5	- cm3/1000 strokes : 126.0 - Tolerance
Spreed Tolerance		cm3/1000 strokes : + 1.0 Check tolerance
cm3/1000 strokes Check tolerance	: 2.0	cm3/1000S. : +- 4.0 Spreed
cm3/1000s.	: 4.0	Tolerance cm3/1000 strokes : 5.0
(B) SETTING OF IN	JECTION PUMP .	Check tolerance : 8.0
WITH GOVERNOR	-	+
GUIDE SLEEVE TRAV	/EL -	CONTROL LEVER
Rated speed rpm guide sleeve	: 300	control lever position degree : 115.0
travel mm Tolerance mm	: 0.92 - : + 0.25 -	+ tolerance degree : +- 4.0
Rated speed rpm	: 1255	RATED SPEED
guide sleeve travel mm	: 7.93 -	+ rack travel mm : 12.90 + Rated speed rpm : 1245
Tolerance mm	: + 0.25	+ Rated speed rpm : 1245 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve	: 671	rack travel mm : 4.00 Rated speed rpm : 1405
travel mm Tolerance mm	: 3.58 : +- 0.25	Tolerance 1/min : + 15
Rated speed rpm	: 721	rack travel mm : 0.50 Tolerance mm : + 0.50
guide sleeve	4	Rated speed rpm : 1500
travel mm Tolerance mm	: 4.06 : +- 0.25	
Rated speed rpm guide sleeve	: 970	LOW IDLE
travel mm	: 5.51	
Tolerance mm	: ← 0.25	control lever
Rated speed rpm guide sleeve	: 1690	position degree : 75.0 tolerance degree : +- 4.0
travel mm	: 13.50	Testing:
Tolerance mm	: +- 0.50	Rated speed rpm : 300
GUIDE SLEEVE POSI	TION	rack travel mm : 3.90 Tolerance mm : +- 0.10
Rated speed rpm	: 1450	Rated speed rpm : 200

CRT mm min.	: > 4.50	+ Del. quantity + cm3/1000 strokes : 126.0 + Tolerance
TORQUE CONTROL		
Rated speed rpm rack travel mm		+ cm3/1000S. : + 5.0 + Spreed + Tolerance
Tolerance mm		cm3/1000 strokes : 6.0 Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 600 : 13.90	cm3/1000s. : 9.0
Tolerance mm	: + 0.10	Aneroid pressure + hPa : -
ANEROID/ALTITUDE		Rated speed rpm : 500 Del. quantity
COMPENSATOR TEST		+ cm3/1000 strokes : 67.0 + Tolerance
SETTING		+ cm3/1000 strokes : + 1.0 + Check tolerance + cm3/1000s. : + 3.0
Rated speed rpm Pressure hPa	• 1400	
rack travel mm Tolerance mm	: 13.90 : + 0.05	BREAKAWAY
MEASUREMENT		Rack travel in mm : 12.90 Rated speed rpm : 1245
Pressure hPa Rated speed rpm	- 500	Tolerance 1/min : + 5
Tolerance mm		<u> </u>
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa rack travel mm		Rated speed rpm : 100 Del. quantity
Tolerance mm		cm3/1000 strokes : 150.0 Tolerance
Pressure hPa rack travel mm	: 350 : 0.50	cm3/1000 strokes : + 5.0 Check tolerance
Tolerance mm	: + 0.10	cm3/1000s. : + 8.0
START CUT-OUT		
Rated speed rpm Rated speed rpm		LOW IDLE
Check		+ Rated speed rpm : 300 + rack travel mm : 3.90
speed 1/min	; > 80	+ Tolerance mm : + 0.20
Check speed 1/min	: < 220	+ Del. quantity + cm3/1000 strokes : 12.0
EUEL DEL TUEDY CUA	ADACTEDIOTICS	+ Tolerance - cm3/1000 strokes : + 2.0 - Check tolerance
FUEL DELIVERY CHA	INAC IENTO I TO	+ cm3/1000s. : +- 4.5
Aneroid pressure hPa	: 1400	+ Spreed + Tolerance
Rated speed rpm		cm3/1000 strokes : 2.0

Check tolerance cm3/1000s.	:	4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 12.06.95 Edition : ISO 4113 Test oil

Combination No. : 0 403 244 041

Injection pump

Pump designation : PES4MW100/720RS1519

: -2

EP type number : 0 413 204 017

Governor

Governer design. : RQV300...1200MW132

: -8

: 0 420 083 313 Governer no.

Cust. part No. : 0250748602

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

RFMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

4.55 Prestroke mm : +- 0.05 Tolerance mm

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 20.00 Tolerance mm : \leftarrow 1.00

Firing order : 1-3-4-2

: 0-90-180-270 Phasing Tolerance : + 0.50

Check

tolerance °NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 13.90 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 126.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance

cm3/1000 strokes : 5.0

6 E1		1
Check tolerance	. 00	Dool toward in my 20.00
cm3/1000s.	: 8.0	Rack travel in mm: 10.00
Rated speed rpm	. 700	Tolerance mm : + 2.00
kated speed rpm	: 500	
Rack travel in mo	n 300 .	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance mm	_	TOLL LOND DELIVERY AT TOLL LOND STOT
Del. quantity		Rated speed rpm : 1200
cm3/1000 strokes	: 12.0 -	Aneroid pressure
Tolerance	•	hPa : 1400
cm3/1000 strokes	: ← 2.0 -	Del. quantity
Check tolerance	<u></u>	cm3/1000 strokes : 126.0
cm3/1000s.	: +- 4.5	Tolerance
Spreed	-	cm3/1000 strokes : + 1.0
Tolerance	. 20	Check tolerance
cm3/1000 strokes Check tolerance	: 2.0	cm3/1000S. : +- 4.0 - Spreed
cm3/1000s.	: 4.0	Tolerance
CIRST TOODS.	. 4.0	cm3/1000 strokes : 5.0
	<u>.</u>	Check tolerance
(B) SETTING OF IN	VJECTION PUMP	cm3/1000s. : 8.0
WITH GOVERNOR		
	-	}
·		
GUIDE SLEEVE TRAV	/EL -	CONTROL LEVER
But and the second second	700	
Rated speed rpm	: 300	control lever
guide sleeve travel mm	: 0.92	position degree : 115.0 tolerance degree : + 4.0
Tolerance mm	: +- 0.25	L toterance degree . += 4.0
TOCCT CITICC TIME	0.2	RATED SPEED
Rated speed rpm	: 1255	-
guide sleeve	-	rack travel mm : 12.90
travel mm	: 7.93	- Rated speed rpm : 1245
Tolerance mm	: +- 0.25	Tolerance 1/min : +- 5
		
Rated speed rpm	: 671	rack travel mm : 4.00
guide sleeve	: 3.58	- Rated speed rpm : 1405
travel mm	: 3.58 : + 0.25	Tolerance 1/min : +- 15
Tolerance mm	: - 0.2	rack travel mm : 0.50
Rated speed rpm	: 721	Tolerance mm : + 0.50
guide sleeve	, , , ,	- Rated speed rpm : 1500
travel mm	: 4.06	-
Tolerance mm	: ← 0.25	•
	+	
Rated speed rpm	: 970 	LOW IDLE
guide sleeve	†	
travel mm	5.51	
Tolerance mm	: ← 0.25	control lever
Dated enood nom	: 1690	position degree : 75.0 tolerance degree : +- 4.0
Rated speed rpm guide sleeve	. 1070	
travel mm	: 13.50	- - Testing:
Tolerance mm	+ 0.50	-
· wow. with the city	4	- Rated speed rpm : 300
		- rack travel mm : 3.90
GUIDE SLEEVE POSI	TION +	- Tolerance mm : + 0.10
	1/50	
Rated speed rpm	: 1450 +	- Rated speed rpm : 200

CRT mm min.	: > 4.50	Del. quantity cm3/1000 strokes : 126.0 Tolerance
TORQUE CONTROL		cm3/1000 strokes : +- 2.0 Check tolerance
Rated speed rpm	: 1200	cm3/1000s. : +- 5.0 Spreed
rack travel mm Tolerance mm	: 13.90 : + 0.05	Tolerance cm3/1000 strokes : 6.0
Rated speed rpm	: 600	Check tolerance cm3/1000s. : 9.0
Rated speed rpm rack travel mm Tolerance mm	: 13.90 : + 0.10	Aneroid pressure
	I	hPa : - Rated speed rpm : 500
ANEROID/ALTITUDE COMPENSATOR TEST	1	Del. quantity cm3/1000 strokes : 67.0
TOTAL CONTROL (CO.)	+	Tolerance
SETTING	‡	cm3/1000 strokes : + 1.0 Check tolerance
Rated speed rpm	: 500	cm3/1000s. : +- 3.0
Pressure hPa	: 1400	
rack travel mm Tolerance mm	: 13.90	BREAKAWAY
MEASUREMENT	† †	Rack travel in mm : 12.90
Pressure hPa	· - I	Rated speed rpm : 1245 Tolerance 1/min : +- 5
Rated speed rpm	: 500	Total and Thirth
Tolerance mm	: ← 0.10 †	
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa	: 600	Rated speed rpm : 100
rack travel mm		Del. quantity
Tolerance mm	: + 0.10	cm3/1000 strokes : 150.0 Tolerance
Pressure hPa	: 350	cm3/1000 strokes : +- 5.0
rack travel mm	: 0.50 + : + 0.10 +	Check tolerance cm3/1000s. : + 8.0
Tolerance mm	T	CIID/10003
START CUT-OUT	+	
Rated speed rpm	: > 100	LOW IDLE
	: < 200	Dated aread may 200
Check	Ī	Rated speed rpm : 300 rack travel mm : 3.90
speed 1/min	: > 80 +	Tolerance mm : + 0.20
Check	+	Del. quantity
speed 1/min	: < 220	cm3/1000 strokes : 12.0 Tolerance
FUEL DELIVERY CHAR	ACTERISTICS	cm3/1000 strokes : + 2.0 Check tolerance
Aneroid pressure	1	cm3/1000S. : +- 4.5 Spreed
nPa	: 1400	Tolerance
Rated speed rpm	: 600	cm3/1000 strokes : 2.0

cm3/1000s.	:	4.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 19.06.95 Edition : ISO 4113 Test oil

Combination No. : 0 403 244 045

Injection pump

Pump designation : PES4MW100/720RS1524

EP type number : 0 413 204 021

Governor

Governer design. : RQV300...1300MW132

: -12

: 0 420 083 329 Governer no.

Cust. part No. : 0240740902

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C : + 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0 x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm 4.55 Tolerance mm : + 0.05Check

tolerance mm : + 0.10

Rack travel in mm: 21.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : + - 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.00 : ← 0.05 Tolerance mm

Del. quantity cm3/1000 strokes :

89.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 4.5

3.0

Check tolerance

cm3/1000s. 7.0

	† guide sleeve
Rated speed rpm : 300	+ travel mm : 13.50
	+ Tolerance mm : + 0.50
Rack travel in mm : 4.40	+
Tolerance mm : +- 0.20	
Del. quantity	→ GUIDE SLEEVE POSITION
cm3/1000 strokes : 12.0	1
Tolerance	∔ Rated speed rpm : 1350
cm3/1000 strokes : + 2.0	1
Check tolerance	Rack travel in mm: 10.00
cm3/1000s. : +- 4.5	+ Tolerance mm : + 2.00
Spreed	
Tolerance	
cm3/1000 strokes : 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	TOLL COND DELEVENT AT TOLL COND OTO
cm3/1000s. : 4.0	Rated speed rpm : 1300
	+ Aneroid pressure
	hPa : 700
(B) SETTING OF INJECTION PUMP	Del. quantity
WITH GOVERNOR	cm3/1009 strokes : 89.0
WITH GOVERNOR	Tolerance
	- cm3/1000 strokes : + 1.0
GUIDE SLEEVE TRAVEL	Check tolerance
GOIDE STEERE LYNAET	
Rated speed rpm : 300	4
	+ Spreed
guide sleeve	+ Tolerance
travel mm : 0.91	+ cm3/1000 strokes : 4.5
Tolerance mm : + 0.25	+ Check tolerance
2011	+ cm3/1000s. : 7.0
Rated speed rpm : 1353	†
guide sleeve	†
travel mm : 7.14	
Tolerance mm : + 0.25	+ CONTROL LEVER
	†
Rated speed rpm : 1130	+ control lever
guide sleeve	+ position degree : 111.0
travel mm : 5.40	tolerance degree : + 4.0
Tolerance mm : + 0.25	†
	+ RATED SPEED
Rated speed rpm : 610	†
guide sleeve	+ rack travel mm : 10.00
travel mm : 2.96	+ Rated speed rpm : 1345
Tolerance mm : +- 0.25	+ Tolerance 1/min : +- 5
	+
Rated speed rpm : 660	+ rack travel mm : 4.00
guide sleeve	+ Rated speed rpm : 1445
travel mm : 3.31	† Tolerance 1/min : + 15
Tolerance mm : + 0.25	+
	+ rack travel mm : 0.50
Rated speed rpm : 780	+ Tolerance mm : + 0.50
guide sleeve	+ Rated speed rpm : 1550
travel mm : 3.72	+
Tolerance mm : + 0.25	+
Rated speed rpm : 1679	+ LOW IDLE
guide sleeve	+
travel mm : 12.00	+
Tolerance mm : + 0.25	+ control lever
	position degree : 73.0
Rated speed rpm : 1780	+ tolerance degree : + 4.0
Mater opeco (pin) 1100	1 3000, 41100 403, 00 1 . 110

Testing:

300 Rated speed rpm 4.40 rack travel mm 0.10 Tolerance mm

200 Rated speed rpm

CRT mm min. 5.00 : >

TORQUE CONTROL

1300 Rated speed rpm 11.00 rack travel mm Tolerance mm : +- 0.05

750 Rated speed rpm 11,00 rack travel mm Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 700 Pressure hPa 11.00 rack travel mm : + 0.05Tolerance mm

MEASUREMENT

Pressure hPa 500 Rated speed rpm Tolerance mm : + 0.10

Rated speed rpm 500

230 Pressure hPa 0.90 rack travel mm : + 0.10Tolerance mm

150 Pressure hPa 0.30 rack travel mm : + 0.10Tolerance mm

START CUT-OUT

Rated speed rpm 100 : > Rated speed rpm 200

Check

speed 1/min 80 : >

Check

: < 220 speed 1/min

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

700 hPa 750 Rated speed rpm

Del. quantity cm3/1000 strokes : 82.0

Tolerance

cm3/1000 strokes 1.5 Check tolerance

cm3/1000s. 4.0 Spreed

Tolerance

cm3/1000 strokes 6.0 Check tolerance 9.0 cm3/1000s.

Aneroid pressure

Rated speed rpm 500 Del. quantity

cm3/1000 strokes : 56.0

Tolerance

cm3/1000 strokes 1.0

Check tolerance cm3/1000s. 3.0 : +-

BREAKAWAY

Rack travel in mm: 10.00 Rated speed rpm : Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100

Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : +-5.0

Check tolerance

cm3/1000s. 8.0 : +-

LOW IDLE

300 Rated speed rpm rack travel mm 4.40 : +- 0.20 Tolerance mm Del. quantity cm3/1000 strokes :

12.0

Tolerance
cm3/1000 strokes : +- 2.0
Check tolerance
cm3/1000s. : +- 4.5
Spreed
Tolerance
cm3/1000 strokes : 2.0
Check tolerance
cm3/1000s. : 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 12.07.95 Test oil : ISO 4113

Combination No. : 0 403 244 045A

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

: 0 413 204 018 EP type number

Governor

Governer design. : RQV300...1300MW132

: 0 420 083 296 Governer no.

Cust. part No. : 0240740802

Customer-spec. information : MB-NFZ Customer

Motor : OM364LA Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar : + 1.5 Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1270

Rack travel in mm: 11.15

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

: +- 3.0 cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance cm3/1000s. : 7.0	Rack travel in mm: 10.00 Tolerance mm: + 2.00
Rated speed rpm : 300	Total divide initial and a second sec
Rack travel in mm: 4.00 Tolerance mm: +- 0.10	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1270
Del. quantity cm3/1000 strokes : 12.0 Tolerance	+ Rated speed rpm : 1270 + Aneroid pressure + hPa : 700
cm3/1000 strokes : +- 2.0 Check tolerance	Del. quantity cm3/1000 strokes : 87.0
cm3/1000s. : +- 4.5 Spreed	Tolerance : + 1.0
Tolerance cm3/1000 strokes : 2.0 Check tolerance	+ Check tolerance + cm3/1000s. : + 3.0 + Spreed
cm3/1000s. : 4.0	Tolerance cm3/1000 strokes : 4.5
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	theck tolerance cm3/1000s. : 7.0
GUIDE SLEEVE TRAVEL	CONTROL LEVER
Rated speed rpm : 300 guide sleeve travel mm : 0.91 Tolerance mm : +- 0.20	control lever position degree : 111.0 tolerance degree : + 4.0
Rated speed rpm : 1353	RATED SPEED
guide sleeve travel mm : 7.02	rack travel mm : 10.10 Rated speed rpm : 1345
Tolerance mm : + 0.15	Tolerance 1/min : + 10
Rated speed rpm : 1090 guide sleeve travel mm : 5.21	rack travel mm : 4.00 Rated speed rpm : 1445 Tolerance 1/min : +- 5
Tolerance mm : + 0.25	rack travel mm : 0.50
Rated speed rpm : 790 guide sleeve	Tolerance mm : + 0.50 Rated speed rpm : 1550
travel mm : 3.98 Tolerance mm : + 0.25	<u> </u>
Rated speed rpm : 1759 guide sleeve	LOW IDLE
travel mm : 12.00 Tolerance mm : + 0.25	control lever
Rated speed rpm : 1870 guide sleeve	+ position degree : 74.0 + tolerance degree : + 4.0
travel mm : 13.50 Tolerance mm : \(\infty \) 0.50	Testing:
CUIDE SUFFUE DOSTITON	+ Rated speed rpm : 300 + rack travel mm : 4.00
GUIDE SLEEVE POSITION	Tolerance mm : + 0.10
Rated speed rpm : 1500	+ Rated speed rpm : 200

CRT mm min.	: > 4.70	+ Check tolerance + cm3/1000s. : + 4.0 + Spreed
ORQUE CONTROL		
ated speed rpm		theck tolerance cm3/1000s. : 9.0
Tolerance mm	: ← 0.05	Aneroid pressure
Rated speed rpm rack travel mm		Rated speed rpm : 500 Del. quantity
Tolerance mm	: + 0.10	cm3/1000 strokes : 67.0 Tolerance
ANEROID/ALTITUDE		+ cm3/1000 strokes : +- 1.0 + Check tolerance
COMPENSATOR TEST		cm3/1000s. : + 3.0
ETTING		BREAKAWAY
Rated speed rpm Pressure hPa		Rack travel in mm: 10.10
rack travel mm	: 11.15	Rated speed rpm : 1345
olerance mm	: ← 0.05	Tolerance 1/min : + 10
MEASUREMENT		<u> </u>
Pressure hPa Rated speed rpm		STARTING FUEL DELIVERY
Tolerance mm	: + 0.10	+ Rated speed rpm : 100 + Del. quantity
Rated speed rpm	: 500	cm3/1000 strokes : 125.0 Tolerance
Pressure hPa	: 230	+ cm3/1000 strokes : $+$ 5.0
rack travel mm Tolerance mm	: 0.20 : +- 0.10	+ Check tolerance + cm3/1000s. : +- 8.0
START CUT-OUT		
Rated speed rpm		LOW IDLE
Rated speed rpm	: < 200	Rated speed rpm : 300
heck	. 00	+ rack travel mm : 4.00
speed 1/min Check	: > 80	Tolerance mm : +- 0.10 Del. quantity
speed 1/min	: < 220	- cm3/1000 strokes : 12.0
		† Tolerance
UEL DELIVERY CHAR	RACTERISTICS	cm3/1000 strokes : +- 2.0 Check tolerance
neroid pressure		+ cm3/1000s. : + 4.5 + Spreed
inerola pressure iPa	: 700	+ Tolerance
lated speed rpm	750	+ cm3/1000 strokes : 2.0
el. quantity		+ Check tolerance
m3/1000 strokes Tolerance		+ cm3/1000s. : 4.0
m3/1000 strokes	: +- 1.5	1

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.05.95 Test oil : ISO 4113

Combination No. : 0 403 244 046

Injection pump

Pump designation : PES4MW100/720RS1525

EP type number : 0 413 204 022

Governor

Governer design. : RQV300...1300MW132

: -13

: 0 420 083 330 Governer no.

Cust. part No. : 0260746202

Customer-spec. information Customer : M8-NFZ Motor : 0M364LA Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

: 1 419 992 198 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar : ← 1.5 Tolerance bar

Test Lines : 1 680 750 089

Outside diameter : 8.0 x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +-1.0

Prestroke mm 4.55 Tolerance mm : **←** 0.05

Check

: + 0.10tolerance mm

Rack travel in mm: 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : +- 0.50Check

tolerance °NW : **←** 0.75

BASIC SETTING

Rated speed rom 1300

13.30 Rack travel in mm: Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 119.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed Tolerance

cm3/1000 strokes : 5.0

Check tolerance cm3/1000s. :	8.0	Rated speed rpm : 1780
6.4.4	700	guide sleeve
Rated speed rpm :	300	travel mm : 13.50 Tolerance mm : + 0.50
Rack travel in mm :		
	+- 0.20 +	CUITATI OLI TELIT DOCUTTON
Del. quantity cm3/1000 strokes :	12.0	GUIDE SLEEVE POSITION
Tolerance	 	Rated speed rpm : 1445
cm3/1000 strokes :	+ 2.0 +	- 1
Check tolerance cm3/1000s. :	+ 4.5 [†]	Rack travel in mm : 10.00 Tolerance mm : +- 2.50
Spreed .	Ţ- 4.3	Total alice light . +- 2.50
Tolerance	+	
cm3/1000 strokes :	2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s. :	4.0	Rated speed rpm : 1300
	1	Aneroid pressure
4	+	hPa : 1200
(B) SETTING OF INJE WITH GOVERNOR	CTION PUMP	Del. quantity cm3/1000 strokes : 119.0
WITH GOVERNOR	Ī	Tolerance
		cm3/1000 strokes : +- 1.0
GUIDE SLEEVE TRAVEL	+	Check tolerance
Rated speed rpm :	300 ‡	cm3/1000s. : +- 4.0 Spreed
guide sleeve	1	Tolerance
travel mm :	0.91	cm3/1000 strokes : 5.0
Tolerance mm :	+ 0.25	Check tolerance
Rated speed rpm :	1354	cm3/1000s. : 8.0
guide sleeve	1	
travel mm :	7.15	
Tolerance mm :	+ 0.25	CONTROL LEVER
Rated speed rpm :	1130	control lever
guide sleeve	-	position degree : 113.0
travel mm :	5.40 + 0.25	tolerance degree : +- 4.0
Tolerance mm :	1	RATED SPEED
Rated speed rpm :	610	
guide sleeve	†	rack travel mm : 12.30
travel mm : Tolerance mm :	2.96 + 0.25	Rated speed rpm : 1345 Tolerance 1/min : +- 5
rocci di loc ilini	1	Total division of the state of
Rated speed rpm :	660	rack travel mm : 4.00
guide sleeve travel mm	3.31	Rated speed rpm : 1475 Tolerance 1/min : +- 15
Tolerance mm :	+ 0.25	rocerance (/m/ii)
	+	rack travel mm : 0.50
Rated speed rpm :	780 +	Tolerance mm : +- 0.50
guide sleeve travel mm :	3.72	Rated speed rpm : 1550
Tolerance mm :	+ 0.25	
	+	
Rated speed rpm : guide sleeve	1679	LOW IDLE
travel mm :	12.00	
Tolerance mm :	+ 0.25 +	

		+ Check
control lever		+ speed 1/min :> 80
position degree	: 74.0	+ Check
tolerance degree	: ← 4.0	speed 1/min : < 220
Testing:		FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 300	TOLE DELIVERY CHARACTERISTICS
rack travel mm	: 3.90	+ Aneroid pressure
Tolerance mm	: + 0.10	+ hPa : 1200
Data dama adama	. 200	Rated speed rpm : 600
Rated speed rpm	: 200	+ Del. quantity + cm3/1000 strokes : 117.0
CRT mm min.	: > 4.50	Tolerance
OTT 11811 121111		+ cm3/1000 strokes : +- 2.0
		+ Check tolerance
TORQUE CONTROL		+ cm3/1000s. : +- 5.0
Ontal	. 4700	+ Spreed
Rated speed rpm	: 1300 : 13.30	+ Tolerance + cm3/1000 strokes : 6.0
rack travel mm Tolerance mm	: + 0.05	+ Check tolerance
	2.09	+ cm3/1000s. : 9.0
Rated speed rpm	: 600	+
rack travel mm	: 13.30	+ Aneroid pressure
Tolerance mm	: +- 0.10	+ hPa : -
		Rated speed rpm : 500 Del. quantity
ANEROID/ALTITUDE		cm3/1000 strokes : 50.0
COMPENSATOR TEST		+ Tolerance
		+ cm3/1000 strokes : +- 1.0
		+ Check tolerance
SETTING		+ cm3/1000s. : + 3.0
Rated speed rpm	: 500	I
Pressure hPa rack travel mm Tolerance mm	: 1200	+ BREAKAWAY
rack travel mm	: 13.90	+
Tolerance mm	: +- 0.05	+
		+ Rack travel in mm: 12.30
MEASUREMENT		+ Rated speed rpm : 1345 + Tolerance 1/min : + 5
Pressure hPa	• -	T Total and Third : T
Rated speed rpm	500	+
Tolerance mm	: ← 0.10	
		+ STARTING FUEL DELIVERY
Rated speed rpm	: 500	Dotted aread area a 100
Pressure hPa	: 750	+ Rated speed rpm : 100 + Del. quantity
rack travel mm	: 3.70	- cm3/1000 strokes : 150.0
Tolerance mm	: +- 0.10	→ Tolerance
		+ cm3/1000 strokes : $+$ 5.0
Pressure hPa	: 350	+ Check tolerance
rack travel mm	: 1.20	+ cm3/1000s. : + 8.0
Tolerance mm	: + 0.10	Ţ
START CUT-OUT		LOW IDLE
Rated speed rpm	: > 100	+
Rated speed rpm		+ Rated speed rpm : 300
		rack travel mm : 3.90

Tolerance mm Del. quantity	: +-	0.20
cm3/1000 strokes	:	12.0
Tolerance cm3/1000 strokes	: +-	2.0
Check tolerance cm3/1000s.	: +-	4.5
Spreed Tolerance		
cm3/1000 strokes	:	2.0
Check tolerance cm3/1000s.	:	4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 19.05.95 Edition : ISO 4113 Test oil

Combination No. : 0 403 244 047

Injection pump

Pump designation : PES4MW100/720RS1525 : 0 413 204 022 EP type number

Governor

Governer design. : RQV300...1300MW132

: -13

Governer no. : 0 420 083 330

Cust. part No. : 0260746302

Customer-spec. information Customer : MB-NFZ : 0M364LA Motor Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar : + 1.5 Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0 x inside diameter : 3.0 600 x Length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 Tolerance mm : + - 0.05Check

: + 0.10tolerance mm

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : ← 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.30 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 119.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance

cm3/1000 strokes : 5.0

Check tolerance	+	
cm3/1000s.	: 8.0	Rated speed rpm : 1780 guide sleeve
Rated speed rpm	: 300	travel mm : 13.50 Tolerance mm : + 0.50
Rack travel in m		rocci arioc imi
Tolerance mm Del. quantity	+	GUIDE SLEEVE POSITION
cm3/1000 strokes Tolerance	: 12.0	Rated speed rpm : 1445
cm3/1000 strokes Check tolerance	: + 2.0	Rack travel in mm : 10.00
cm3/1000s.	: +- 4.5	Tolerance mm : +- 2.50
Spreed Tolerance	‡	
cm3/1000 strokes Check tolerance	: 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: 4.0	Rated speed rpm : 1300 Aneroid pressure
(D) of The Of The	ALLEGE TO ALLEGE	hPa : 1200
(B) SETTING OF IN	MECITON DOMB	Del. quantity cm3/1000 strokes : 119.0
		Tolerance cm3/1000 strokes : +- 1.0
GUIDE SLEEVE TRAV	VEL ±	Check tolerance cm3/1000s. : +- 4.0
Rated speed rpm	: 300	Spreed
guide sleeve travel mm	: 0.91	Tolerance cm3/1000 strokes : 5.0
Tolerance mm	: + 0.25	Check tolerance cm3/1000s. : 8.0
Rated speed rpm guide sleeve	: 1354	
travel mm	: 7.15	
Tolerance mm	: + 0.25	CONTROL LEVER
Rated speed rpm guide sleeve	: 1130	control lever position degree : 113.0
travel mm	: 5.40	tolerance degree : + 4.0
Tolerance mm	: + 0.25	RATED SPEED
Rated speed rpm	: 610	
guide sleeve	+	rack travel mm : 12.30
travel mm Tolerance mm	: 2.96 : + 0.25	Rated speed rpm : 1345 Tolerance 1/min : +- 5
	+	
Rated speed rpm guide sleeve	: 660	rack travel mm : 4.00 Rated speed rpm : 1475
travel mm	: 3.31	Tolerance 1/min : + 15
Tolerance mm	: + 0.25	mode Amount am
Rated speed rpm	: 780	rack travel mm : 0.50 Tolerance mm : +- 0.50
guide sleeve travel mm	: 3.72	Rated speed rpm : 1550
Tolerance mm	: + 0.25	
Rated speed rpm guide sleeve	: 1679	LOW IDLE
travel mm	: 12.00	
Tolerance mm	: + 0.25	

control lever	7. 0	+ Check + speed 1/min : > 80
position degree tolerance degree	: 74.0 : + 4.0	Check speed 1/min : < 220
Testing:		FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	• 300	T FOEL DELIVERY CHARACTERISTICS
rack travel mm	: 3.90	Aneroid pressure
Tolerance mm	: + 0.10	+ hPa : 1200
		+ Rated speed rpm : 600
Rated speed rpm	: 200	+ Del. quantity
		+ cm3/1000 strokes : 117.0
CRT mm min.	: > 4.50	+ Tolerance
		+ cm3/1000 strokes : +- 2.0
TODALE CONTROL	·····	
TORQUE CONTROL		+ cm3/1000s. : $+$ 5.0
Dakad award upp	. 1700	+ Spreed
Rated speed rpm	: 1300 : 13.30	Tolerance cm3/1000 strokes : 6.0
rack travel mm Tolerance mm	: 15.50 : 15.50	+ Check tolerance
Toterance imi	: 0.05	+ cm3/1000s. : 9.0
Rated speed rpm	• .600	I (1107 18003
rack travel mm	: 13.30	Aneroid pressure
Tolerance mm		+ hPa : -
		Rated speed rpm : 500
ANEROID/ALTITUDE		+ cm3/1000 strokes : 50.0
COMPENSATOR TEST		Tolerance
		+ cm3/1000 strokes : + 1.0
		+ Check tolerance
SETTING		+ cm3/1000s. : + 3.0
	500	†
Rated speed rpm	: 500 : 1200	DDEALANA
Pressure hPa rack travel mm	: 13.30	+ BREAKAWAY
Tolerance mm	: + 0.05	.
roterance mm	: 0.05	Rack travel in mm: 12.30
MEASUREMENT		Rated speed rpm : 1345
PEASOREMENT		Tolerance 1/min : + 5
Pressure hPa	• -	Total dide 17 miles
Rated speed rpm	500	1
Tolerance mm		
	2	+ STARTING FUEL DELIVERY
Rated speed rpm	: 500	+
·		+ Rated speed rpm : 100
Pressure hPa	: 750	Del. quantity
rack travel mm	: 3.70	+ cm3/1000 strokes : 150.0
Tolerance mm	: +- 0.10	+ Tolerance
n 1-	750	+ cm3/1000 strokes : + 5.0
Pressure hPa	: 350	Check tolerance
rack travel mm	: 1.20	+ cm3/1000s. : + 8.0
Tolerance mm	: ← 0.10	Ţ
		+
START CUT-OUT		LOW IDLE
Rated speed rpm	: > 100	1
Rated speed rpm		A Rated speed rpm : 300
יישי שטטשט יישייי		rack travel mm : 3.90
		t and transfer and the second

Tolerance mm	: +-	0.20
Del. quantity cm3/1000 strokes Tolerance	:	12.0
cm3/1000 strokes Check tolerance	: +-	2.0
cm3/1000s.	: +-	4.5
Tolerance cm3/1000 strokes	;	2.0
Check tolerance cm3/1000s.	:	4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.06.95 Test oil : ISO 4113

Combination No. : 0 403 244 048

Injection pump

Pump designation : PES4MW100/720RS1524

EP type number : 0 413 204 021

Governor

Governer design. : RQV300...1300MW132

: -12

Governer no. : 0 420 083 329

Cust. part No. : 0240741002

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 21.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : + 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 17.00 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 89.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance

cm3/1000s. : 7.0

Rated speed rpm	+	guide sleeve travel mm : 13.50 Tolerance mm : +- 0.50
Rack travel in mm Tolerance mm	: 4.40 : +- 0.20	
Del. quantity	12.2	GUIDE SLEEVE POSITION
cm3/1000 strokes Tolerance	: 12.0	Rated speed rpm : 1350
cm3/1000 strokes Check tolerance	: ← 2.0	
cm3/1000s.	: + 4.5	Rack travel in mm : 10.00 Tolerance mm : +- 2.00
Spreed Tolerance	+	
cm3/1000 strokes	: 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s.	: 4.0	Rated speed rpm : 1300
CMS/ 10003.	: 4.0	Rated speed rpm : 1300 Aneroid pressure
(D) (DTTT) (D (T T))	+	hPa : 700
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	Del. quantity cm3/1000 strokes : 89.0
	4	Tolerance
GUIDE SLEEVE TRAVE	FI 1	cm3/1000 strokes : +- 1.0 Check tolerance
	+	cm3/1000s. : +- 3.0
Rated speed rpm	: 300 +	Spreed
guide sleeve travel mm	: 0.91	Tolerance cm3/1000 strokes : 4.5
Tolerance mm	: +· 0.20	Check tolerance
Rated speed rpm	: 1353	cm3/1000s. : 7.0
guide sleeve	1999	
travel mm	: 7.14	CONTROL LEURD
Tolerance mm	: + 0.15	CONTROL LEVER
Rated speed rpm	: 1130	control lever
guide sleeve travel mm	: 5.40	position degree : 111.0 tolerance degree : + 4.0
Tolerance mm	: +- 0.25	_
Rated speed rpm	: 610	RATED SPEED
guide sleeve	· • • • • • • • • • • • • • • • • • • •	rack travel mm : 10.00
travel mm	: 2.96	Rated speed rpm : 1345
Tolerance mm	: + 0.25	Tolerance 1/min : + 5
Rated speed rpm	: 660	rack travel mm : 4.00
guide sleeve travel mm	: 3.31	Rated speed rpm : 1445 Tolerance 1/min : +- 15
Tolerance mm	: + 0.25	
Pated speed nom	: 780	rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve	. 700	Rated speed rpm : 1550
travel mm	3.72	
Tolerance mm	: + 0.25	
Rated speed rpm guide sleeve	: 1679	LOW IDLE
travel mm	: 12.00	
Tolerance mm	: + 0.25	control lever
Rated speed rpm	: 1780	position degree : 74.D tolerance degree : +- 4.D

G03

Testing:

Rated speed rpm : 300 rack travel mm : 4.40 Tolerance mm : + 0.10

Rated speed rpm : 200

CRT mm min. :> 5.00

TORQUE CONTROL

Rated speed rpm : 1300 rack travel mm : 11.00 Tolerance mm : + 0.05

Rated speed rpm : 750 rack travel mm : 11.00 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 700
rack travel mm : 11.00
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
Tolerance mm : + 0.10

Rated speed rpm : 500

Pressure hPa : 230 rack travel mm : 0.90 Tolerance mm : + 0.10

Pressure hPa : 150
rack travel mm : 0.30
Tolerance mm : + 0.10

START CUT-OUT

Rated speed rpm : > 100
Rated speed rpm : < 200

Check

speed 1/min : > 80

Check

speed 1/min : < 220

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 700 Rated speed rpm : 750

Del. quantity

cm3/1000 strokes : 82.0

Tolerance

cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.0 Spreed

Tolerance

cm3/1000 strokes : 6.0 Check tolerance

cm3/1000s. : 9.0

Aneroid pressure

hPa : -Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 56.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. ; \leftarrow 3.0

BREAKAWAY

Rack travel in mm: 10.00
Rated speed rpm: 1345
Tolerance 1/min: + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : \leftarrow 5.0

Check tolerance

cm3/1000s. : +- 8.0

LOW IDLE

Rated speed rpm : 300 rack travel mm : 4.40 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 12.0

Tolerance cm3/1000 strokes	: +-	2.0
Check tolerance cm3/1000S. Spreed	: +-	4.5
Tolerance cm3/1000 strokes	•	2.0
Check tolerance cm3/1000s.	:	4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 26.04.95 Test oil : ISO 4113

Combination No. : 0 403 246 035

Injection pump

Pump designation : PES6MW100/720RS1517

: -3

EP type number : 0 413 206 020

Governor

Governer design. : RQV300...1300MW132

: -2

Governer no. : 0 420 083 293

Cust. part No. : 0240744202

Customer—spec. information Customer : MB—NFZ

Motor : 0M366LA Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : ← 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.00Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.25

Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 95.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance cm3/1000 strokes : 4.5	- guide sleeve - travel mm : 12.00 - Tolerance mm : +- 0.25
Check tolerance cm3/1000s. : 7.0	- Rated speed rpm : 1780
Rated speed rpm : 300	- guide sleeve - travel mm : 13.50 - Tolerance mm : +- 0.50
Rack travel in mm : 3.50 Tolerance mm : + 0.10	- Toterance him : +- 0.50
Del. quantity cm3/1000 strokes : 12.0	- GUIDE SLEEVE POSITION
Tolerance cm3/1000 strokes : + 2.0 Check tolerance	- Rated speed rpm : 1400 - - Rack travel in mm : 13.00
cm3/1000s. : + 4.5	- Tolerance mm : +- 2.00
Tolerance cm3/1000 strokes : 2.0 Check tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. : 4.0	- Rated speed rpm : 1300 - Aneroid pressure
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	- hPa : 1000 - Del. quantity - cm3/1000 strokes : 95.0
GUIDE SLEEVE TRAVEL	- Tolerance - cm3/1000 strokes : +- 1.0 - Check tolerance
Rated speed rpm : 300 + guide sleeve	- cm3/1000s. : +- 3.0 - Spreed - Tolerance
travel mm : 1.02 + Tolerance mm : + 0.25	cm3/1000 strokes : 4.5 Check tolerance
Rated speed rpm : 1353 guide sleeve	- cm3/1000s. : 7.0 -
travel mm : 6.70 + Tolerance mm : + 0.25	CONTROL LEVER
Rated speed rpm : 1100 guide sleeve travel mm : 4.76	control lever position degree : 116.0 tolerance degree : + 4.0
Tolerance mm : +- 0.25	RATED SPEED
Rated speed rpm : 490 + guide sleeve + travel mm : 2.25 + travel mm + travel m	rack travel mm : 10.20 Rated speed rpm : 1345
Tolerance mm : + 0.25	Tolerance 1/min : +- 5
Rated speed rpm : 540 + guide sleeve + travel mm : 2.50 +	rack travel mm : 4.00 Rated speed rpm : 1460 Tolerance 1/min : +- 15
Tolerance mm : + 0.25	rack travel mm : 0.50
Rated speed rpm : 710 guide sleeve	Tolerance mm : +- 0.50 Rated speed rpm : 1550
Travel mm : 3.03 + 0.25	
Rated speed rpm : 1683	LOW IDLE

	Check
control lever	+ speed 1/min :> 80
position degree : 71.0	+ Check
tolerance degree : +- 4.0	+ speed 1/min : < 240
Tookings	†
Testing:	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm : 300	+ OLD DECEMENT OF MAN OF ENTERING
rack travel mm : 3.50	+ Aneroid pressure
Tolerance mm : + 0.10	+ hPa : 1000
	+ Rated speed rpm : 600
Rated speed rpm : 200	+ Del. quantity
COT: / 20	+ cm3/1000 strokes : 87.0
CRT mm min. :> 4.20	+ Tolerance + cm3/1000 strokes : + 1.5
	+ Check tolerance
TORQUE CONTROL	- cm3/1000s. : +- 4.0
TORAGE CONTROL	Spreed
Rated speed rpm : 1300	+ Tolerance
rack travel mm : 11.25	+ cm3/1000 strokes : 6.0
Tolerance mm : +- 0.05	+ Check tolerance
	+ cm3/1000s. : 9.0
Rated speed rpm : 600	***************************************
rack travel mm : 11.25 Tolerance mm : + 0.10	+ Aneroid pressure + hPa : -
roterance in . += 0.1%	Rated speed rpm : 500
	+ Del. quantity
ANEROID/ALTITUDE	+ cm3/1000 strokes : 57.0
COMPENSATOR TEST	† Tolerance
	+ cm3/1000 strokes : +- 1.0
	+ Check tolerance
SETTING	+ cm3/1000s. : + 3.0
Rated speed rpm : 500	İ
Pressure hPa : 1000	BREAKAWAY
rack travel mm : 11.25	
Tolerance mm : +- 0.05	+
	+ Rack travel in mm: 10.20
MEASUREMENT	+ Rated speed rpm : 1345
	+ Tolerance 1/min : + 5
Pressure hPa : -	†
Rated speed rpm : 500 Tolerance mm : + 0.10	
rocer grice limit . 17 U. 10	T STARTING FUEL DELIVERY
Rated speed rpm : 500	+
	+ Rated speed rpm : 100
Pressure hPa : 350	+ Del. quantity
rack travel mm : 1.45	+ cm3/1000 strokes : 125.0
Tolerance mm : + 0.10	+ Tolerance + cm3/1000 strokes : +- 5.0
Pressure hPa : 250	+ Check tolerance
rack travel mm : 0.75	- cm3/1000s. : + 8.0
Tolerance mm : +- 0.10	1
	+
OTABE OUT	†
START CUT-OUT	LOW IDLE
Rated speed rpm :> 100	T LOW IDEC
Rated speed rpm : < 220	Rated speed rpm : 300
	1 open spin s open

G08

rack travel mm Tolerance mm	: : +-	3.50 0.10
Del. quantity cm3/1000 strokes Tolerance	:	12.0
cm3/1000 strokes Check tolerance	: +-	2.0
cm3/1000S. Spreed	: +-	4.5
Tolerance cm3/1000 strokes Check tolerance	:	2.0
cm3/1000s.	:	4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20.06.95 Test oil : ISO 4113

Combination No. : 0 403 246 036

Injection pump

Pump designation : PES6MW100/720RS1517

: -2

EP type number : 0 413 206 019

Governor

Governer design. : RQV300...1300MW132

: -4

Governer no. : 0 420 083 299

Cust. part No. : 0240744402

Customer—spec. information Customer : M8-NFZ Motor : CM366LA

Power KW : 155.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 13.30 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 118.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance cm3/1000 strokes : 4.5	guide sleeve travel mm : 12.00 Tolerance mm : +- 0.25
Check tolerance cm3/1000s. : 7.0	Rated speed rpm : 1780
Rated speed rpm : 300	guide sleeve travel mm : 13.50 Tolerance mm : +- 0.50
Rack travel in mm : 3.80 Tolerance mm : + 0.20	
Del. quantity cm3/1000 strokes : 12.0	GUIDE SLEEVE POSITION
Tolerance + 2.0 + Check tolerance + + + + + + + + + + + + + + + + + + +	Rated speed rpm : 1450 Rack travel in mm : 13.00
cm3/1000s. : +- 4.5 Spreed	Tolerance min : + 2.00
Tolerance + cm3/1000 strokes : 2.0 + Check tolerance + cm3/1000 strokes : 2.0 + cm3/1000 strokes	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. : 4.0	Rated speed rpm : 1300 Aneroid pressure
(B) SETTING OF INJECTION PUMP	hPa : 1000 Del. quantity
WITH GOVERNOR	cm3/1000 strokes : 118.0 Tolerance cm3/1000 strokes : +- 1.0
GUIDE SLEEVE TRAVEL	Check tolerance cm3/1000s. : + 3.0
Rated speed rpm : 300	Spreed Tolerance
travel mm : 1.02 +	cm3/1000 strokes : 4.5
Tolerance mm : + 0.25 +	Check tolerance cm3/1000s. : 7.0
Rated speed rpm : 1353 guide sleeve	CHD7 10003 7.0
travel mm : 6.70	
Tolerance mm : + 0.25	CONTROL LEVER
Rated speed rpm : 1100	control lever
guide sleeve +	position degree : 120.0
travel mm : 4.76 + Tolerance mm : + 0.25 +	tolerance degree : +- 4.0
Tolerance mm : + 0.25	RATED SPEED
Rated speed rpm : 490	TOTAL OF LEED
guide sleeve +	rack travel mm : 12.30
travel mm : 2.25	Rated speed rpm : 1345
Tolerance mm : $\leftarrow 0.25$	Tolerance 1/min : +- 5
Rated speed rpm : 540	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1485
travel mm : 2.50 +	Tolerance 1/min : + 15
Tolerance mm : \leftarrow 0.25	nock though my . O.E.O.
Rated speed rpm : 710	rack travel mm : 0.50 Tolerance mm : +- 0.50
Rated speed rpm : 710 + guide sleeve +	Rated speed rpm : 1550
travel mm : 3.03	nacea opeca i piii . 1220
Tolerance mm : + 0.25	
Rated speed rpm : 1683	LOW IDLE

control lever position degree tolerance degree	: 72.0 : + 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm	: 200
CRT mm min.	: > 4.50
Rated speed rpm rack travel mm	: 490 : 2.00
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm	: 600 : 13.30 : ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1000 : 13.30 : + 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm Tolerance mm	: - : 500 : + 0.10
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 600 : 3.00 : + 0.10
Pressure hPa rack travel mm Tolerance mm	: 300 : 1.20 : + 0.10
STADT CUT-OUT	

Rated speed rpm Rated speed rpm	:	> <	100 200	
Check speed 1/min Check	:	>	80	
speed 1/min	:	<	220	
FUEL DELIVERY CHA	RA	CTE	RISTICS	
Aneroid pressure		,	1000	
hPa Rated speed rpm	:	1	1000 600	
Del. quantity cm3/1000 strokes	:		119.0	
Tolerance cm3/1000 strokes Check tolerance	:	+-	1.5	
cm3/1000s. Spreed	:	+-	4.0	
Tolerance cm3/1000 strokes	:		6.0	
Check tolerance cm3/1000s.	•			
	•		9.0	
Aneroid pressure hPa	:		_ 500	
Rated speed rpm Del. quantity				
cm3/1000 strokes Tolerance	:		48.0	
cm3/1000 strokes Check tolerance	:	+-	1.0	
cm3/1000s.	:	+	3.0	
BREAKAWAY				
Rack travel in mm	:		12.30	
Rated speed rpm Tolerance 1/min	:	+-1	345 5	
STARTING FUEL DELI	.VE	RY		
Rated speed rpm Del. quantity	:		100	
cm3/1000 strokes Tolerance	:		150.0	
cm3/1000 strokes Check tolerance	:	+	5.0	
cm3/1000s.	:	+	8.0	

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm Del. quantity	: : : +-	300 3.80 0.20	
	:	12.0	
Tolerance cm3/1000 strokes	: +-	2.0	
Check tolerance cm3/1000s.	: +-	4.5	
Spreed			
Tolerance cm3/1000 strokes Check tolerance	:	2.0	
cm3/1000s.	:	4.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 13.04.95 Test oil : ISO 4113

Combination No. : 0 403 246 043

Injection pump

Pump designation : PES6MW100/720RS1523

EP type number : 0 413 206 024

Governor

Governer design. : RQV300...1300MW148

: 0 420 083 321 Governer no.

Cust. part No. : 0250744302

Customer-spec. information : MB-NFZ Customer : 0M366LA Motor Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

208.5 Tolerance bar

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

4.55 Prestroke mm Tolerance mm : + 0.05

Check

: + 0.10 tolerance mm

Rack travel in mm: 21.00

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.50

Check

: + 0.75tolerance "NW

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.40

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes :

98.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance		+
cm3/1000s.	: 7.0	GUIDE SLEEVE POSITION
Rated speed rpm		+ Rated speed rpm : 1500
্নিজ্ঞিংk travel in mm Tolerance mm		+ Rack travel in mm : 10.00
Del. quantity cm3/1000 strokes	: 12.0	Tolerance mm : +- 2.50
Tolerance cm3/1000 strokes	: +- 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s.	: +- 4.5	+ Rated speed rpm : 1300
Spreed Tolerance		+ Aneroid pressure + hPa : 700
cm3/1000 strokes Check tolerance		the deligrantity to the deligrant to the
cm3/1000s.	: 4.0	Tolerance + cm3/1000 strokes : + 1.0
(B) SETTING OF IN	WECTION PUMP	- Check tolerance - cm3/1000s. : + 3.0 - Spreed
		Tolerance cm3/1000 strokes : 4.5
GUIDE SLEEVE TRAV		+ Check tolerance + cm3/1000s. : 7.0
Rated speed rpm guide sleeve		‡
travel mm Tolerance mm	: 0.92 : ← 0.25	CONTROL LEVER
Rated speed rpm guide sleeve	: 1354	control lever + position degree : 118.0
travel mm Tolerance mm	: 9.32 : + 0.25	tolerance degree : + 4.0 RATED SPEED
Rated speed rpm guide sleeve		rack travel mm : 10.40
travel mm Tolerance mm	: 7.05 : +- 0.25	Rated speed rpm : 1345 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve	: 514	rack travel mm : 4.00 Rated speed rpm : 1455
travel mm Tolerance mm	: 2.14 : +- 0.25	Tolerance 1/min : + 15
Rated speed rpm guide sleeve	: 564	+ rack travel mm : 0.50 + Tolerance mm : + 0.50 + Rated speed rpm : 1550
travel mm Tolerance mm	: 2.60 : +- 0.25	+
Rated speed rpm guide sleeve	: 740	LOW IDLE
travel mm Tolerance mm	: 3.93 : +- 0.25	control lever
Rated speed rpm guide sleeve	: 1720	position degree : 75.0 tolerance degree : +- 4.0
travel mm Tolerance mm	: 13.50 : +- 0.50	Testing:

Rated speed rpm rack travel mm Tolerance mm	: 300 : 4.00 : +- 0.10	Check speed 1/min : < 240
Rated speed rpm	: 200	FUEL DELIVERY CHARACTERISTICS
CRT mm min.	: > 4.70	Aneroid pressure hPa : 700 Rated speed rpm : 750 Del. quantity
TORQUE CONTROL		Del. quantity cm3/1000 strokes : 88.0
Rated speed rpm rack travel mm	: 11.40	Tolerance cm3/1000 strokes : +- 1.5
Tolerance mm		Check tolerance cm3/1000s. : +- 4.0
Rated speed rpm rack travel mm Tolerance mm	: 11.40 : + 0.10	+ Spreed + Tolerance + cm3/1000 strokes : 6.0
Rated speed rpm	: 600	Check tolerance cm3/1000s. : 9.0
rack travel mm Tolerance mm	: 11.40	Aneroid pressure hPa: 700 Rated speed rpm: 600
ANEROID/ALTITUDE COMPENSATOR TEST		Rated speed rpm : 600 Del. quantity cm3/1000 strokes : 88.0
SETTING		Tolerance cm3/1000 strokes : +- 1.5 Check tolerance
	• 500	cm3/1000s. : + 4.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 700 : 11.40 : +- 0.10	Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity
MEASUREMENT		cm3/1000 strokes : 57.0 Tolerance
Pressure hPa Rated speed rpm Tolerance mm	: - : 500 : + 0.10	cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
Rated speed rpm		
Pressure hPa rack travel mm	: 350 : 1.40	BREAKAWAY
Tolerance mm Pressure hPa		Rack travel in mm : 10.40 Rated speed rpm : 1345 Tolerance 1/min : + 5
rack travel mm Tolerance mm		
START CUT-OUT		STARTING FUEL DELIVERY
Rated speed rpm Rated speed rpm	: > 100 : < 220	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 125.0
Check speed 1/min	: > 80	Tolerance cm3/1000 strokes : +- 5.0 Check tolerance
Specu Triire)	00	cm3/1000s. : +- 8.0

LOW IDLE

300 Rated speed rpm 4.00 rack travel mm Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance cm3/1000s. 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 13.04.95 Test oil : ISO 4113

Combination No. : 0 403 246 049

Injection pump

Pump designation : PES6MW100/720RS1523

EP type number : 0 413 206 024

Governor

Governer design. : RQV300...1200MW148

: −6

: 0 420 083 327 Governer no.

Cust. part No. : 0250745002

Customer-spec. information Customer : MB-NFZ : OM366LA Motor Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance *C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar : + 1.5 Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0 x inside diameter: 3.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm 4.55 : +- 0.05 Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm: 21.00

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 11.40 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 96.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance cm3/1000s.	: 7.0	†
		GUIDE SLEEVE POSITION
Rated speed rpm		Rated speed rpm : 1500
Rack travel in m Tolerance mm		+ Rack travel in mm: 10.00
Del. quantity cm3/1000 strokes	: 12.0	Tolerance mm : + 2.50
Tolerance		T
cm3/1000 strokes Check tolerance	: + 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. Spreed	: +- 4.5	Rated speed rpm : 1200 Aneroid pressure
Tolerance	0.0	+ hPa : 700
cm3/1000 strokes Check tolerance	: 2.0	+ Del. quantity + cm3/1000 strokes : 96.0
cm3/1000s.	: 4.0	Tolerance + cm3/1000 strokes : + 1.0
		+ Check tolerance
(B) SETTING OF IN WITH GOVERNOR	NJECTION PUMP	+ cm3/1000s. : +- 3.0 + Spreed
		+ Tolerance + cm3/1000 strokes : 4.5
GUIDE SLEEVE TRAN	/EL	Check tolerance cm3/1000s. : 7.0
Rated speed rpm guide sleeve	: 300	
travel mm	: 0.92	CONTROL I EUE
Tolerance mm	: + 0.25	+ CONTROL LEVER
Rated speed rpm guide sleeve	: 1214	control lever + position degree : 118.0
travel mm	: 8.08	tolerance degree : + 4.0
Tolerance mm	: +- 0.25	+ RATED SPEED
Rated speed rpm	: 1031	+
guide sleeve travel mm	: 6.74	+ rack travel mm : 10.40 + Rated speed rpm : 1245
Tolerance mm	: +- 0.25	+ Tolerance 1/min : + 5
Rated speed rpm	: 514	rack travel mm : 4.00
guide steeve travel mm	: 2.14	Rated speed rpm : 1375 Tolerance 1/min : + 15
Tolerance mm	: +- 0.25	+
Rated speed rpm	: 564	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1500
guide sleeve travel mm	: 2.60	+ Kated speed rpill : 1300
Tolerance mm	: +- 0.25	<u> </u>
Rated speed rpm guide sleeve	: 740	LOW IDLE
travel mm	: 3.93	+
Tolerance mm	: + 0.25	+ control lever + position degree : 75.0
Rated speed rpm guide sleeve	: 1720	tolerance degree : + 4.0
travel mm Tolerance mm	: 13.50 : + 0.50	Testing:

Rated speed rpm rack travel mm Tolerance mm	: 4.00	Check speed 1/min : < 240
Rated speed rpm	: 200	FUEL DELIVERY CHARACTERISTICS
CRT mm min.	; > 4.70	Aneroid pressure hPa : 700 Rated speed rpm : 750
TORQUE CONTROL		Del. quantity cm3/1000 strokes : 88.0
Rated speed rpm rack travel mm		Tolerance + cm3/1000 strokes : +- 1.5
Tolerance mm	: + 0.05	Check tolerance + cm3/1000s. : +- 4.0
Rated speed rpm rack travel mm		Spreed Tolerance
Tolerance mm	: + 0.10	cm3/1000 strokes : 6.0 Check tolerance
Rated speed rpm	: 600 : 11.40	cm3/1000s. : 9.0
rack travel mm Tolerance mm	: + 0.10	Aneroid pressure hPa : 700
ANEROID/ALTITUDE COMPENSATOR TEST		Rated speed rpm : 600 Del. quantity cm3/1000 strokes : 88.0
oon Enorton Teor		Tolerance - cm3/1000 strokes : + 1.5
SETTING		- Check tolerance - cm3/1000s. : + 4.0
Rated speed rpm Pressure hPa		Aneroid pressure
rack travel mm Tolerance mm		+ hPa : - + Rated speed rpm : 500
MEASUREMENT		Del. quantity cm3/1000 strokes : 57.0
Pressure hPa	: – : 500	+ Tolerance + cm3/1000 strokes : +- 1.0 + Check tolerance
Rated speed rpm Tolerance mm	: + 0.10	cm3/1000s. : + 3.0
Rated speed rpm	: 500	BREAKAWAY
Pressure hPa rack travel mm	: 350 : 1.40	
Tolerance mm	: +- 0.10	Rack travel in mm: 10.40 Rated speed rpm: 1245
Pressure hPa rack travel mm	: 250 : 0.70	Tolerance 1/min : + 5
Tolerance mm	: ← 0.10	
START CUT-OUT		STARTING FUEL DELIVERY
Rated speed rpm		Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 125.0
Rated speed rpm Check	. \	+ Tolerance + cm3/1000 strokes : +- 5.0
speed 1/min	: > 80	Check tolerance + cm3/1000s. : + 8.0
		,

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm Del. quantity	: : +-	300 4.00 0.20	
cm3/1000 strokes	:	12.0	
Tolerance cm3/1000 strokes	• 4-	2.0	
Check tolerance	; +-	2.0	
cm3/1000s.	: +-	4.5	
Spreed Tolerance			
cm3/1000 strokes	:	2.0	
Check tolerance			
cm3/1000s.	:	4.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 12.06.95 Test oil : ISO 4113

Combination No. : 0 403 444 144

Injection pump

Pump designation : PES4MW100/720RS1151

EP type number : 0 413 404 104

Governor

Governer design. : RQV300...1300MW67-7

Governer no. : 0 420 083 278

Cust. part No. : 0230745902

Customer-spec. information Customer : MB-NFZ Motor : 0M364A Power KW : 79.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05

Check tolerance mm

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-3-4-2

: + - 0.10

Phasing : 0-90-180-270

Tolerance : ← 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 10.85 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 83.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes :

: 3.5

Check tolerance	- Del. quantity
cm3/1000s. : 6.0	- cm3/1000 strokes : 83.0
. 5.5	- Tolerance
Datasi annual annual 200	
Rated speed rpm : 300	- cm3/1000 strokes : +- 1.0
†	- Check tolerance
Rack travel in mm: 6.40	- cm3/1000s. : + 3.0
Tolerance mm : $+$ 0.20	- Spreed
Del. quantity	- Tolerance
cm3/1000 strokes : 12.0	- cm3/1000 strokes : 3.5
Tolerance	Check tolerance
cm3/1000 strokes : + 2.0 +	- cm3/1000s. : 6.0
Check tolerance +	-
cm3/1000s. : $+$ 4.5	•
Spreed +	
Tolerance	- CONTROL LEVER
cm3/1000 strokes : 3.5	
Check tolerance	control lever
	position degree : 112.0
cm3/1000s. : 5.5	
†	tolerance degree : +- 4.0
†	
(B) SETTING OF INJECTION PUMP	RATED SPEED
WITH GOVERNOR +	
4	rack travel mm : 9.80
	Rated speed rpm : 1345
GUIDE SLEEVE TRAVEL	Tolerance 1/min : +- 5
GOIDE STEERS INMAEL	Total differential to the second
700	
Rated speed rpm : 300	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1435
travel mm : 1.40 +	Tolerance 1/min : + 15
Tolerance mm : $+$ 0.25	
	rack travel mm : 0.50
+	rack travel mm : 0.50
Rated speed rpm : 477	Tolerance mm : + 0.50
Rated speed rpm : 477 guide sleeve	
Rated speed rpm : 477 guide sleeve travel mm : 2.85	Tolerance mm : + 0.50
Rated speed rpm : 477 guide sleeve	Tolerance mm : + 0.50
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25	Tolerance mm : +- 0.50 Rated speed rpm : 1500
Rated speed rpm : 477 guide sleeve travel mm : 2.85	Tolerance mm : + 0.50
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490	Tolerance mm : +- 0.50 Rated speed rpm : 1500
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve	Tolerance mm : +- 0.50 Rated speed rpm : 1500
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93	Tolerance mm : +- 0.50 Rated speed rpm : 1500 LOW IDLE
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve	Tolerance mm : +- 0.50 Rated speed rpm : 1500 LOW IDLE control lever
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600	Tolerance mm : +- 0.50 Rated speed rpm : 1500 LOW IDLE control lever
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : 490 guide sleeve travel mm : 2.93 Tolerance mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : 490 guide sleeve travel mm : 2.93 Tolerance mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing:
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 GUIDE SLEEVE POSITION	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40 Tolerance mm : + 0.10
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40 Tolerance mm : + 0.10 rack travel mm : 2.00
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 GUIDE SLEEVE POSITION Rated speed rpm : 1435	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 510
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 GUIDE SLEEVE POSITION Rated speed rpm : 1435 Rack travel in mm : 9.80	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40 Tolerance mm : + 0.10 rack travel mm : 2.00
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 GUIDE SLEEVE POSITION Rated speed rpm : 1435	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 510 Tolerance 1/min : + 30
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 GUIDE SLEEVE POSITION Rated speed rpm : 1435 Rack travel in mm : 9.80	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 510
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 GUIDE SLEEVE POSITION Rated speed rpm : 1435 Rack travel in mm : 9.80	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 510 Tolerance 1/min : + 30
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 GUIDE SLEEVE POSITION Rated speed rpm : 1435 Rack travel in mm : 9.80	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 510 Tolerance 1/min : + 30
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : 490 guide sleeve travel mm : 2.93 Tolerance mm : 40.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : 40.50 GUIDE SLEEVE POSITION Rated speed rpm : 1435 Rack travel in mm : 9.80 Tolerance mm : + 2.00	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 510 Tolerance 1/min : + 30 Rated speed rpm : 200
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 GUIDE SLEEVE POSITION Rated speed rpm : 1435 Rack travel in mm : 9.80 Tolerance mm : + 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 510 Tolerance 1/min : + 30 Rated speed rpm : 200
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 GUIDE SLEEVE POSITION Rated speed rpm : 1435 Rack travel in mm : 9.80 Tolerance mm : + 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 510 Tolerance 1/min : + 30 Rated speed rpm : 200 CRT mm min. : > 8.00
Rated speed rpm : 477 guide sleeve travel mm : 2.85 Tolerance mm : + 0.25 Rated speed rpm : 490 guide sleeve travel mm : 2.93 Tolerance mm : + 0.25 Rated speed rpm : 1600 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50 GUIDE SLEEVE POSITION Rated speed rpm : 1435 Rack travel in mm : 9.80 Tolerance mm : + 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.50 Rated speed rpm : 1500 LOW IDLE control lever position degree : 78.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 6.40 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 510 Tolerance 1/min : + 30 Rated speed rpm : 200

Rated speed rpm rack travel mm Tolerance mm	: 1300 : 10.85 : +- 0.05	+ Aneroid pressure + hPa : 700 + Rated speed rpm : 600
Rated speed rpm rack travel mm		Del. quantity cm3/1000 strokes : 77.0 Tolerance
Tolerance mm		cm3/1000 strokes : + 1.5 Check tolerance
Rated speed rpm rack travel mm	: 11.65	cm3/1000s. : + 4.0 Spreed
Tolerance mm		Tolerance cm3/1000 strokes : 5.0
Rated speed rpm rack travel mm Tolerance mm	: 11.40	+ Check tolerance + cm3/1000S. : 7.0
		+ Aneroid pressure + hPa : -
ANEROID/ALTITUDE COMPENSATOR TEST		Rated speed rpm : 500 Del. quantity
		+ cm3/1000 strokes : 46.0 + Tolerance
SETTING		+ cm3/1000 strokes : + 1.0 + Check tolerance
Rated speed rpm Pressure hPa	: 700	cm3/1000s. : + 3.0
rack travel mm Tolerance mm		BREAKAWAY
MEASUREMENT		Rack travel in mm: 9.80
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 9.75	Rated speed rpm : 1345 Tolerance 1/min : +- 5
Rated speed rpm		STARTING FUEL DELIVERY
Pressure hPa		Rated speed rpm : 100
rack travel mm Tolerance mm	: 11.40	Del. quantity cm3/1000 strokes : 83.0
		Tolerance + cm3/1000 strokes : +- 5.0
Pressure hPa rack travel mm	: 10.40	Check tolerance
Tolerance mm	: +- 0.10	+ cm3/1000s. : + 8.0
START CUT-OUT		
Rated speed rpm Rated speed rpm		LOW IDLE
Check		Rated speed rpm : 300 + rack travel mm : 6.40
speed 1/min	: > 80	Tolerance mm : 0.40
Check		+ Del. quantity
speed 1/min	: < 230	cm3/1000 strokes : 12.0 Tolerance
FUEL DELIVERY CHA	RACTERISTICS	+ cm3/1000 strokes : + 2.0 + Check tolerance
		+ cm3/1000s. : +- 4.5 + Spreed

Tolerance cm3/1000 strokes : Check tolerance cm3/1000s. : 3.5

: 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 26.04.95 Test oil : ISO 4113

Combination No. : 0 403 444 151

Injection pump

Pump designation : PES4MW100/720RS1235

EP type number : 0 413 404 121

Governor

Governer design. : RQV300...1300MW139

Governer no. : 0 420 083 304

Cust. part No. : 0250742602

Customer—spec. information
Customer : MB-NFZ
Motor : 0M364A
Power KW : 79.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0
Tolerance bar : + 1.0

Prestroke mm : 3.70
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 13.15 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 90.0

Tolerance cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s.	: 6.0	†
		GUIDE SLEEVE POSITION
Rated speed rpm		Rated speed rpm : 1430
Rack travel in m Tolerance mm Del. quantity		+ Rack travel in mm : 10.00 + Tolerance mm : + 2.00
cm3/1000 strokes Tolerance	: 12.0	Total differ many E
cm3/1000 strokes Check tolerance	: ← 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. Spreed	; +- 4.5	Rated speed rpm : 1300 Aneroid pressure
Tolerance cm3/1000 strokes	: 3.5	hPa : 700 Del. quantity
Check tolerance cm3/1000s.	: 5.5	+ cm3/1000 strokes : 90.0 + Tolerance
(D) SETTING OF THE	ALLECTION DIMD	cm3/1000 strokes : +- 1.0 Check tolerance
(B) SETTING OF IN	AJECITON POMP	- cm3/1000s. : +- 3.0 - Spreed - Tolerance
GUIDE SLEEVE TRAV	/EL	- cm3/1000 strokes : 3.5 - Check tolerance - cm3/1000S. : 6.0
Rated speed rpm guide sleeve		1
travel mm Tolerance mm	: 1.27 : + 0.25	CONTROL LEVER
Rated speed rpm guide sleeve travel mm	: 10.31	control lever position degree : 118.0 tolerance degree : + 4.0
Tolerance mm		RATED SPEED
Rated speed rpm guide sleeve travel mm Tolerance mm	: 6.18 : + 0.25	rack travel mm : 12.15 Rated speed rpm : 1345 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve	: 390	+ rack travel mm : 4.00 + Rated speed rpm : 1455
travel mm Tolerance mm	: 2.39 : + 0.25	Tolerance 1/min : + 15
Rated speed rpm guide sleeve	: 440	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1550
travel mm Tolerance mm	: 3.01 : + 0.25	†
Rated speed rpm guide sleeve	: 510	LOW IDLE
travel mm Tolerance mm	: 3.56 : +- 0.25	control lever
Rated speed rpm guide sleeve	: 1600	position degree : 76.0 tolerance degree : + 4.0
travel mm Tolerance mm	: 13.50 : + 0.50	Testing:

Rated speed rpm rack travel mm Tolerance mm	: 300 : 7.80 : + 0.10	Check speed 1/min : < 230
Rated speed rpm	: 200	FUEL DELIVERY CHARACTERISTICS
CRT mm min.	: > 9.50	Aneroid pressure hPa : 700 Rated speed rpm : 600
TORQUE CONTROL		Del. quantity cm3/1000 strokes : 78.0
Rated speed rpm rack travel mm	: 1300 : 13.15	Tolerance + cm3/1000 strokes : +- 1.5
Tolerance mm	: + 0.05	Check tolerance + cm3/1000s. : +- 4.0
Rated speed rpm	: 600 : 13.40	Spreed Tolerance
rack travel mm Tolerance mm	: + 0.10	cm3/1000 strokes : 5.0 Check tolerance
Rated speed rpm	: 1000	cm3/1000s. : 7.0
rack travel mm Tolerance mm	: + 0.10	Aneroid pressure
ANEROID/ALTITUDE		Rated speed rpm : 500 Del. quantity
COMPENSATOR TEST		+ cm3/1000 strokes : 49.0 + Tolerance
SETTING		+ cm3/1000 strokes : + 1.0 + Check tolerance
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 13.40 : + 0.10	cm3/1000s. : + 3.0 BREAKAWAY
MEASUREMENT		Rack travel in mm: 12.15
Pressure hPa Rated speed rpm Tolerance mm		+ Rated speed rpm : 1345 + Tolerance 1/min : + 5 +
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 230 : 1.00 : + 0.10	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 90.0
Pressure hPa		Tolerance cm3/1000 strokes : +- 5.0
rack travel mm Tolerance mm	: 0.40 : +- 0.10	Check tolerance cm3/1000s. : + 8.0
START CUT-OUT	<u> </u>	+
Rated speed rpm Rated speed rpm		LOW IDLE Rated speed rpm : 300
Check speed 1/min	; > 80	rack travel mm : 7.80 Tolerance mm : +- 0.10

Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 03.07.95 Test oil : ISO 4113

Combination No. : 0 403 446 177

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design. : RQV300...1300MW48 Governer no. : 0 420 083 066

Cust. part No. :

Customer—spec. information
Customer : MB-NFZ
Motor : OM366A
Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05
Check

heck

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: −300 : + 0.50

Tolerance Check

tolerance "NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.05
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 78.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

	+		
Check tolerance cm3/1000s.	: 6.0	FULL LOAD DELIVERY	AT FULL LOAD STOP
Rated speed rpm	: 300	Rated speed rpm : Aneroid pressure	1300
Rack travel in mm	: 7.90	hPa :	-
Tolerance mm	: + 0.20 }	Del. quantity	
Del. quantity	+	cm3/1000 strokes :	78.0
cm3/1000 strokes	: 11.0	Tolerance	
Tolerance cm3/1000 strokes	: ← 2.0 [‡]	cm3/1000 strokes : Check tolerance	+ 1.0
Check tolerance	· · · · · I		+- 3.0
cm3/1000s.	: ÷ 4.5	Spreed	
Spreed	+	Tolerance	
Tolerance	+	cm3/1000 strokes :	3.5
cm3/1000 strokes	: 3.5	Check tolerance	4.0
Check tolerance cm3/1000s.	: 5.5	cm3/1000s. :	6.0
(1107 10000 :	, 3.3		
(B) SETTING OF INJE	ECTION PUMP	CONTROL LEVER	
WITH GOVERNOR	†	aambual lassaa	
	<u> </u>	control lever position degree :	113.0
GUIDE SLEEVE TRAVEL	Ţ	tolerance degree :	+ 4.0
	+		
Rated speed rpm : guide sleeve	: 300	RATED SPEED	
travel mm	: 1.37	rack travel mm :	10.00
Tolerance mm	: ← 0.20 	Rated speed rpm :	1345
	+	Tolerance 1/min :	← 5
	: 1354 +	mode through me	/. nn
guide sleeve travel mm	: 8.65	rack travel mm : Rated speed rpm :	4.00 1440
	+ 0.15	Tolerance 1/min :	+- 15
	+		
	: 885 +	rack travel mm :	0.50
guide sleeve	, , , , , , , , , , , , , , , , , , ,	Tolerance mm :	+ 0.50
	: 5.01 + : + 0.25 +	Rated speed rpm :	1550
Tolerance mm :	Ţ		
Rated speed rpm :	490		
guide sleeve	t	LOW IDLE	
travel mm :	2.86 + 0.25		
Tolerance mm :	1	control lever	
Rated speed rpm :	1610	position degree :	83.0
guide sleeve	}	tolerance degree :	+- 4.0
	11.50		
Tolerance mm :	+ 0.50	Testing:	
	<u> </u>	Rated speed rpm :	300
GUIDE SLEEVE POSITI	ION I	rack travel mm :	7.90
	1	rack travel mm : Tolerance mm :	+ 0.10
Rated speed rpm :	1440		
Secret America C. Co.	10.00	Rated speed rpm :	100
Rack travel in mm : Tolerance mm :		CRT mm min. :	> 8.70
TOTEL CLIFE HEN .	Ţ.,	VIX. (MIII III III)	0.70
	•		

Rated speed rpm	: 415	†
TORQUE CONTROL		- BREAKAWAY
Rated speed rpm rack travel mm Tolerance mm	: 11.05 : +- 0.05	Rack travel in mm : 10.00 Rated speed rpm : 1345 Tolerance 1/min : + 5
Rated speed rpm rack travel mm Tolerance mm	: 11.90	STARTING FUEL DELIVERY
Rated speed rpm rack travel mm Tolerance mm	: 12.10 : + 0.10	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 83.0 Tolerance cm3/1000 strokes : +- 5.0
rack travel mm Tolerance mm	: 11.20	Check tolerance : +- 8.0
START CUT-OUT		LOW IDLE
Rated speed rpm Rated speed rpm		+ Rated speed rpm : 300 + rack travel mm : 7.90
Check speed 1/min Check	; > 80	rack travel mm : 7.90 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 11.0
speed 1/min	: < 250	Tolerance cm3/1000 strokes : + 2.0 Check tolerance
FUEL DELIVERY CHA		+ cm3/1000s. : +- 4.5 + Spreed + Tolerance
hPa Rated speed rpm	: - : 800	cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5
Del. quantity cm3/1000 strokes Tolerance	: 77.0	1 11111/10003.
cm3/1000 strokes Check tolerance cm3/1000s.	: + 1.5 : + 4.0	Ī
Spreed Tolerance cm3/1000 strokes	: 5.0	End of test specification sheet
Check tolerance cm3/1000s.	: 7.0	‡
Aneroid pressure hPa Rated speed rpm	: - : 585	<u>‡</u>
Del. quantity cm3/1000 strokes		
Tolerance cm3/1000 strokes Check tolerance	: ← 1.5	T
cm3/1000s.	: +- 4.0	†

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 04.07.95 Edition Test oil : ISO 4113

Combination No. : 0 403 446 216

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design.: RQV300...1400MW48-8

: 0 420 083 175 Governer no.

Cust. part No.

Customer-spec. information Customer : MB-NFZ : OM 366 A Motor Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 : +- 1.5 Tolerance bar

Test Lines : 1 680 715 015

Outside diameter : 6.0 x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : + 1.0

3.55 Prestroke mm Tolerance mm : +- 0.05

Check

tolerance and : + 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.50

Check

tolerance "NW : + 0.75

BASIC SETTING

Rated speed rpm 1400

Rack travel in mm: 10.75 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 78.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

: +-3.0 cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 3.5

	+	
Check tolerance cm3/1000s.	: 6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm	: 300	Rated speed rpm : 1400
Rack travel in mm Tolerance mm	7.90 : + 0.20	Aneroid pressure hPa : - Del. quantity
Del. quantity cm3/1000 strokes	+	cm3/1000 strokes : 78.0 Tolerance
Tolerance cm3/1000 strokes Check tolerance	: + 2.0	cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
cm3/1000s. Spreed	: + 4.5	Spreed Tolerance
Tolerance cm3/1000 strokes Check tolerance	: 3.5	cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0
cm3/1000s.	: 5.5	Ciii37 10003: : 6.0
(B) SETTING OF IN	JECTION PUMP	CONTROL LEVER
	+	control lever
GUIDE SLEEVE TRAV	EL	position degree : 111.0 tolerance degree : +- 4.0
Rated speed rpm guide sleeve	: 300	RATED SPEED
travel mm Tolerance mm	: 1.22 : + 0.20	rack travel mm : 9.70 Rated speed rpm : 1445 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve	: 1453	rack travel mm : 4.00
travel mm Tolerance mm	: 8.30 : + 0.15	Rated speed rpm : 1550 Tolerance 1/min : +- 15
Rated speed rpm guide sleeve	: 594	rack travel mm : 0.50 Tolerance mm : +- 0.50
travel mm Tolerance mm	: 3.30 : + 0.25	Rated speed rpm : 1650
Rated speed rpm guide sleeve	: 400	LOW IDLE
travel mm Tolerance mm	: 2.30 : + 0.25	control lever
Rated speed rpm guide sleeve	: 1770	position degree : 80.0 tolerance degree : +- 4.0
travel mm Tolerance mm	: 11.50 : + 0.50	Testing:
GUIDE SLEEVE POSIT	TION	Rated speed rpm : 300 rack travel mm : 7.90
Rated speed rpm	: 1590	Tolerance mm : +- 0.10 Rated speed rpm : 100
Rack travel in mm Tolerance mm		CRT mm min. : > 10.00
	+	

TORQUE CONTROL

Rated speed rpm : 1400 rack travel mm : 10.75 Tolerance mm : + 0.05

Rated speed rpm : 750 rack travel mm : 12.25 Tolerance mm : + 0.05

Rated speed rpm : 950 rack travel mm : 11.80 Tolerance mm : + 0.10

Rated speed rpm : 1200 rack travel mm : 10.95 Tolerance mm : + 0.15

START CUT-OUT

Rated speed rpm : > 100 Rated speed rpm : < 200

Check

speed 1/min :> 80 Check

speed 1/min : < 230

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 750
Del. quantity
cm3/1000 strokes : 78.0
Tolerance
cm3/1000 strokes : + 1.5
Check tolerance
cm3/1000s. : + 4.0
Spreed

Tolerance cm3/1000 strokes : Check tolerance

cm3/1000s. : 7.0

5.0

BREAKAWAY

Rack travel in mm: 9.70
Rated speed rpm: 1445
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 83.0
Tolerance
cm3/1000 strokes : + 5.0
Check tolerance
cm3/1000s. : + 8.0

LOW IDLE

Rated speed rpm	:	300
rack travel mm	:	7.90
Tolerance mm	: +-	0.20
Del. quantity		
cm3/1000 strokes	:	11.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 27,04,95 Edition : ISO 4113 Test oil

Combination No. : 0 403 446 217

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design. : RQV300...1300MW48-9

Governer no. : 0 420 083 176

Cust. part No.

Customer-spec. information : MB-NFZ Customer Motor . OM366A Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0 x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0

Prestroke mm 3.75 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.50

Check

: + 0.75 tolerance 'NW

BASIC SETTING

1300 Rated speed rpm :

Rack travel in mm: 11.05 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 78.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +-3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

1	Aneroid pressure
Check tolerance	hPa : -
cm3/1000s. : 6.0	Del. quantity
1	cm3/1000 strokes : 78.0
Rated speed rpm : 300	Tolerance
+	cm3/1000 strokes : +- 1.0
Rack travel in mm: 7.90	Check tolerance
Tolerance mm : + 0.10 +	cm3/1000s. : + 3.0
Del. quantity +	Spreed
cm3/1000 strokes : 11.0	Tolerance
Tolerance +	cm3/1000 strokes : 3.5
cm3/1000 strokes : + 2.0 + Check tolerance +	Check tolerance cm3/1000s. : 6.0
cm3/1000s. : + 4.5	CIID/10003 0.0
Spreed	
Tolerance	
cm3/1000 strokes : 3.5	CONTROL LEVER
Check tolerance +	
cm3/1000s. : 5.5	control lever
†	position degree : 100.0
	tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP	DATES OFFES
WITH GOVERNOR	RATED SPEED
	rack travel mm : 10.00
GUIDE SLEEVE TRAVEL	Rated speed rpm : 1345
+	Tolerance 1/min : + 5
Rated speed rpm : 1440	
guide sleeve +	rack travel mm : 4.00
travel mm : 9.50 +	Rated speed rpm : 1440
Tolerance mm : + 0.20 +	Tolerance 1/min : +- 15
Dated award away 200	mode Americal are a 0.50
Rated speed rpm : 300 + guide sleeve +	rack travel mm : 0.50 Tolerance mm : +- 0.50
travel mm : 1.40	Rated speed rpm : 1550
Tolerance mm : + 0.20 +	nated speed ipin . 1990
-	
Rated speed rpm : 1350 +	
guide sleeve +	LOW IDLE
travel mm : 8.70 +	
Tolerance mm : + 0.10 +	
Botod speed speed : 500	control lever
Rated speed rpm : 500 + guide sleeve +	position degree : 70.0 tolerance degree : +- 4.0
travel mm : 3.00	toterance degree 4.b
Tolerance mm : +- 0.30 +	Testing:
1	
+	Rated speed rpm : 300
GUIDE SLEEVE POSITION +	rack travel mm : 7.90 Tolerance mm : + 0.10
+	Tolerance mm : + 0.10
Rated speed rpm : 1350 +	0.1.1
Book traval in man 14 Eû	Rated speed rpm : 100
Rack travel in mm: 16.50 + Tolerance mm: + 1.30 +	CRT mm min. :> 9.50
Total differential . The 1.50	GIST HIP III 7 7.JU
FULL LOAD DELIVERY AT FULL LOAD STOP	TORQUE CONTROL
+	
Rated speed rpm : 1300 +	Rated speed rpm : 1300
+	rack travel mm : 11.05

Tolerance mm	: +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 800 : 11.95 : ← 0.15
Rated speed rpm rack travel mm Tolerance mm	: 585 : 12.10 : ← 0.10
Rated speed rpm rack travel mm Tolerance mm	: 1100 : 11.10 : + 0.10
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 230
Check speed 1/min Check	: > 80
speed 1/min	: < 250
Aneroid pressure hPa Rated speed rpm	: - : 800
Rated speed rpm Del. quantity cm3/1000 strokes	
Tolerance cm3/1000 strokes	: +- 1.5
Check tolerance cm3/1000s. Spreed	: +- 4.0
Tolerance cm3/1000 strokes Check tolerance	: 5.0
cm3/1000s.	: 7.0
Aneroid pressure hPa	: -
Rated speed rpm Del. quantity	: 585
cm3/1000 strokes Tolerance	: 69.0
cm3/1000 strokes Check tolerance cm3/1000s.	: + 1.5 : + 4.0
BREAKAWAY	

Tolerance 1/min	: +- 5	
STARTING FUEL DEL	LIVERY	
Rated speed rpm	: 100	
Del. quantity cm3/1000 strokes Tolerance	: 83.0	
cm3/1000 strokes Check tolerance	: 5.0	
cm3/1000s.	: +- 8.0	
LOW IDLE	700	
Rated speed rpm rack travel mm	: 300 : 7.90	
Tolerance mm Del. quantity	: + 0.10	
Det. Guarities		
cm3/1000 strokes Tolerance	: 11.0	
cm3/1000 strokes	: 11.0 : + 2.0	
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed		
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: + 2.0	

End of test specification sheet

Rack travel in mm : 10.00 Rated speed rpm : 1345

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 25.07.95 Test oil : ISO 4113

Combination No. : 0 403 446 249

Injection pump

Pump designation : PES6MW100/720RS1197

EP type number : 0 413 406 185

Governor

Governer design. : RQV325...1350MW109K

Governer no. : 0 420 083 997

Cust. part No.

Customer-spec. information

Customer : IVECO-FIAT Motor : 8060.45.6000

Power KW : 169.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : + 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.05
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50
Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance $^{\circ}NW$: + 0.75

BASIC SETTING

Rated speed rpm : 1350

Rack travel in mm: 14.05

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 102.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Charle talanana		† Tolerance mm : + 0.50
Check tolerance cm3/1000s.	: 6.0	GUIDE SLEEVE POSITION
Rated speed rpm	: 325	Rated speed rpm : 1475
Rack travel in mo		+
Tolerance mm	: +- 0.20	+ Rack travel in mm : 13.00
Del. quantity cm3/1000 strokes	: 27.0	+ Tolerance mm : +- 2.00
Tolerance cm3/1000 strokes Check tolerance	: +- 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. Spreed	: + 4.5	Rated speed rpm : 1350 Aneroid pressure
Tolerance		+ hPa : 850
cm3/1000 strokes	: 3.5	+ Del. quantity
Check tolerance	: 5.5	+ cm3/1000 strokes : 102.0 + Tolerance
cm3/1000s.	: 5.5	+ cm3/1000 strokes : + 1.0 + Check tolerance
(B) SETTING OF IN	NJECTION PUMP	+ cm3/1000s. : + 3.0
WITH GOVERNOR		Spreed
		+ Tolerance
GUIDE SLEEVE TRAN	/El	+ cm3/1000 strokes : 3.5 + Check tolerance
GOIDE SEELAE IVA	,,,,	+ cm3/1000s. : 6.0
Rated speed rpm guide sleeve	: 325	
travel mm	: 1.90	
Tolerance mm	: + 0.25	CONTROL LEVER
Rated speed rpm	: 1411	t control lever
guide sleeve travel mm	: 10,31	<pre>position degree : 120.0 tolerance degree : +- 4.0</pre>
Tolerance mm		+
		+ RATED SPEED
Rated speed rpm	: 832	47.00
guide sleeve travel mm	: 5.05	+ rack travel mm : 13.00 + Rated speed rpm : 1425
Tolerance mm	: +- 0.25	Tolerance 1/min : + 5
		+
Rated speed rpm	: 346	+ rack travel mm : 4.00
guide sleeve travel mm	: 2.27	+ Rated speed rpm : 1535 + Tolerance 1/min : + 15
Tolerance mm	: +- 0.25	Total ance 17 milli
		+ rack travel mm : 0.50
Rated speed rpm	: 396	+ Tolerance mm : + 0.50
guide sleeve	: 3.13	Rated speed rpm : 1650
travel mm Tolerance mm	: + 0.25	I
TOTAL GILLS THEN		+
Rated speed rpm guide sleeve	: 380	+ LOW IDLE
travel mm	: 3.01	†
Tolerance mm	: +- 0.25	t control lever
Rated speed rpm	: 1640	+ position degree : 82.0 + tolerance degree : + 4.0
guide sleeve travel mm	: 13.50	Testing:

		+ Rated speed rpm : > 265
Rated speed rpm	325	Charle
rack travel mm Tolerance mm	: 7.80 : +- 0.10	+ Check + speed 1/min : > 275
		Topeca mini
Rated speed rpm	: 200	FUEL DEL TUEDV GUADAGERAYOTTO
CRT mm min.	• > 10 00	+ FUEL DELIVERY CHARACTERISTICS
01(1 ///// 125)(174		Aneroid pressure
TARAUT CALITRAL		
TORQUE CONTROL		hPa : 850 Rated speed rpm : 1200 Del. quantity cm3/1000 strokes : 102.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 7.0 Aneroid pressure hPa : 850 Rated speed rpm : 1000 Del. quantity cm3/1000 strokes : 103.0
Rated speed rpm	: 1350	+ cm3/1000 strokes : 102.0
rack travel mm	: 14.05	† Tolerance
Tolerance mm	: +- 0.05	+ cm3/1000 strokes : + 1.5
Pated speed page	• 1200	+ Check tolerance + cm3/1000s. : +- 4.0
Rated speed rpm rack travel mm	13.70	+ Spreed + 4.0
Tolerance mm	: ← 0.10	+ Tolerance
		+ cm3/1000 strokes : 5.0
Rated speed rpm rack travel mm Tolerance mm	: 1000	+ Check tolerance
rack travel mm	: 13.35	+ cm3/1000s. : 7.0
iolerance mm	: +- 0.15	Aneroid pressure
Rated speed rpm	: 700	hPa : 850
rack travel mm	: 13.40	+ Rated speed rpm : 1000
Tolerance mm	: +- 0.10	+ Del. quantity
		+ cm3/1000 strokes : 103.0
ANEROID/ALTITUDE		+ cm3/1000 strokes : + 1.5
COMPENSATOR TEST		+ Check tolerance
		cm3/1000s. : +- 4.0
SETTING		Aneroid pressure
OFILING		hPa : 850
Rated speed rpm	: 500	Rated speed rpm : 700
Pressure hPa	: 850	+ Del. quantity
rack travel mm		+ cm3/1000 strokes : 104.0 + Tolerance
Tolerance mm	: 0.10	+ cm3/1000 strokes : + 1.5
MEASUREMENT		+ Check tolerance
		+ cm3/1000s. : +- 4.0
Pressure hPa	: -	*
Rated speed rpm rack travel mm		+ Aneroid pressure + hPa : -
Tolerance mm	: +- 0.05	Rated speed rpm : 500
		+ Del. quantity
Rated speed rpm	: 500	+ cm3/1000 strokes : 75.0
Pressure hPa	: 550	+ Tolerance + cm3/1000 strokes : + 1.0
rack travel mm		Check tolerance
Tolerance mm		+ cm3/1000s. : +- 3.0
Dunnarius UD-	. 750	†
Pressure hPa rack travel mm	: 350 : 12.00	+ BREAKAWAY
Tolerance mm	: +- 0.05	T OKEARAWA!
. Jest miles inn		+
		Rack travel in mm: 13.00
START CUT-OUT		+ Rated speed rpm : 1425 + Tolerance 1/min : +- 5
		+ Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm 100

WARM-START DELIVERY

100 Rated speed rpm

Del. quantity cm3/1000 strokes : 65.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : + 13.0

COLD-START DELIVERY

100 Rated speed rpm

Del. quantity

cm3/1000 strokes : 105.0

Tolerance

cm3/1000 strokes : +-8.0

Check tolerance cm3/1000s.

: + 10.0

LOW IDLE

325 Rated speed rpm 7.80 rack travel mm

Tolerance mm 0.20

Del. quantity

cm3/1000 strokes : 27.0

Tolerance

cm3/1000 strokes 2.0

Check tolerance

cm3/1000s. 4.5

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

5.5 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.06.95 Test oil : ISO 4113

Combination No. : 0 403 446 280

Injection pump

Pump designation : PES6MW100/720RS1131

: -1

: 0 413 406 165 EP type number

Governor

Governer design. : RQV300...1300MW50

: -19

: 0 420 083 245 Governer no.

Cust. part No. : 0210742202

Customer-spec. information : MB-NFZ Customer : 0M366LA Motor Power KW : 155.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 : +- 1.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.65 : +- 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

: + 0.75tolerance °NW

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.15 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 100.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s.

: +- 3.0

Spreed

Tolerance cm3/1000 strokes :	3.5 ‡	guide sleeve travel mm : 10.00
Check tolerance	<u> </u>	Tolerance mm : + 0.25
	6.0	Rated speed rpm : 1620
Rated speed rpm :	300	guide sleeve travel mm : 11.50 Tolerance mm : +- 0.50
Rack travel in mm :	6.50	Toter arice num
	- 0.10 +	CUTAE OF ECAL DOCUTANT
Del. quantity cm3/1000 strokes :	12.0	GUIDE SLEEVE POSITION
Tolerance	+	Rated speed rpm : 1350
cm3/1000 strokes : + Check tolerance	- 2.0	Rack travel in mm : 16.50
cm3/1000S. : + Spreed	- 4.5	Tolerance mm : + 1.30
Tolerance cm3/1000 strokes :	3.5	FILL LOAD OF THEN AT FILL LOAD STOD
Check tolerance	3.5	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. :	5.5	Rated speed rpm : 1300 Aneroid pressure
(B) SETTING OF INJECT	TON DURED	hPa : 1000 Del. quantity
WITH GOVERNOR		cm3/1000 strokes : 100.0 Tolerance
		cm3/1000 strokes : +- 1.0
GUIDE SLEEVE TRAVEL	+	Check tolerance cm3/1000s. : + 3.0
Rated speed rpm :	300	cm3/1000s. : +- 3.0 Spreed
guide sleeve	+	Tolerance
travel mm : +	0.92 - 0.25	cm3/1000 strokes : 3.5 Check tolerance
	+	cm3/1000s. : 6.0
Rated speed rpm : guide sleeve	1360	
travel mm :	8.64	
Tolerance mm : +	- 0.25	CONTROL LEVER
Rated speed rpm :	2240	control lever
guide sleeve	2/ 92	position degree : 118.0
travel mm : +	24.82 - 0.25 	tolerance degree : +- 4.0
	+	RATED SPEED
Rated speed rpm : guide sleeve	721	rack travel mm : 12.10
travel mm :	5.69	Rated speed rpm : 1350
Tolerance mm : +	- 0.25	Tolerance 1/min : +- 5
Rated speed rpm :	771	rack travel mm : 4.00
guide sleeve	+	Rated speed rpm : 1475
travel mm : +	6.11 - 0.25	Tolerance 1/min : +- 15
	#	rack travel mm : 0.50
Rated speed rpm : guide sleeve	1050	Tolerance mm : + 0.50 Rated speed rpm : 1600
	7.14 - 0.25	
	+	
Rated speed rpm :	1485 +	LOW IDLE

		Rated speed rpm : < 220
control lever position degree tolerance degree		Check speed 1/min : > 80 Check
Testing:		+ speed 1/min : < 240
Rated speed rpm rack travel mm	: 6.50	FUEL DELIVERY CHARACTERISTICS
Tolerance mm		+ Aneroid pressure + hPa : 1000
Rated speed rpm	: 200	Rated speed rpm : 750 Del. quantity
CRT mm min.	: > 8.00	- cm3/1000 strokes : 92.0 - Tolerance
TODOUE CONTROL		
TORQUE CONTROL	4700	+ Check tolerance + cm3/1000s. : +- 4.0
Rated speed rpm rack travel mm	: 13.15	+ Spreed + Tolerance
Tolerance mm	: ← 0.05	+ cm3/1000 strokes : 5.0 + Check tolerance
Rated speed rpm rack travel mm		cm3/1000s. : 7.0
Tolerance mm		Aneroid pressure
		+ hPa : - Rated speed rpm : 500
ANEROID/ALTITUDE COMPENSATOR TEST		+ Del. quantity + cm3/1000 strokes : 43.0
		Tolerance + cm3/1000 strokes : + 1.0
SETTING		Check tolerance cm3/1000s. : +- 3.0
Rated speed rpm	: 500	T (III)/10003
Pressure hPa rack travel mm Tolerance mm		BREAKAWAY
MEASUREMENT		Rack travel in mm: 12.10
Pressure hPa Rated speed rpm rack travel mm	: 10.55	+ Rated speed rpm : 1350 + Tolerance 1/min : +- 5 +
Tolerance mm		STARTING FUEL DELIVERY
Rated speed rpm		Rated speed rpm : 100
Pressure hPa rack travel mm	: 350 : 12.55	+ Del. quantity + cm3/1000 strokes : 105.0
Tolerance mm	: ← 0.15	Tolerance cm3/1000 strokes : +- 5.0
Pressure hPa	: 200	+ Check tolerance
rack travel mm Tolerance mm	: 11.25 : + 0.05	+ cm3/1000s. : + 8.0
START CUT-OUT		LOW IDLE
Rated speed rpm	: > 100	T LOW IDEE

H17

Rated speed rpm	:		300
rack travel mm	:		6.50
Tolerance mm	:	+-	0.10
Del. quantity			
cm3/1000 strokes	:		12.0
Tolerance			
cm3/1000 strokes	:	+-	2.0
Check tolerance			
cm3/1000s.	:	+-	4.5
Spreed			
Tolerance			
cm3/1000 strokes	:		3.5
Check tolerance			
cm3/1000s.	:		5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 04.07.95 Edition : ISO 4113 Test oil

Combination No. : 0 403 446 303

Injection pump

Pump designation : PES6MW100/720RS1131

: -1

: 0 413 406 165 EP type number

Governor

Governer design. : RQV300...1300MW50

: -25

: 0 420 083 271 Governer no.

Cust. part No. : 0220745302

Customer-spec. information Customer : MB-NFZ Motor : 0M366LA Power KW : 155.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : + 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.65 : + 0.05Tolerance mm Check

tolerance mm

: + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance °NW : **→** 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 12.95 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 96.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance cm3/1000s.

3.0 : +-

Spreed

Tolerance cm3/1000 strokes : 3.5 Check tolerance	guide sleeve travel mm : 11.50 Tolerance mm : + 0.50
cm3/1000s. : 6.0	GUIDE SLEEVE POSITION
Rated speed rpm : 300	Rated speed rpm : 1400
Rack travel in mm: 7.15 Tolerance mm: + 0.20 Del. quantity cm3/1000 strokes: 12.0 Tolerance	Rack travel in mm : 10.00 Tolerance mm : + 2.00
cm3/1000 strokes : + 2.0 Check tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. : +- 4.5 Spreed Tolerance	Rated speed rpm : 1300 Aneroid pressure hPa : 1000
cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5	Del. quantity cm3/1000 strokes : 96.0 Tolerance
. 5.5	cm3/1000 strokes : + 1.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	cm3/1000s. : + 3.0 Spreed Tolerance
GUIDE SLEEVE TRAVEL	cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0
Rated speed rpm : 300 guide sleeve	+
travel mm : 1.40 Tolerance mm : +- 0.25	CONTROL LEVER
Rated speed rpm : 1354 guide sleeve travel mm : 8.68 Tolerance mm : + 0.25	control lever position degree : 113.0 tolerance degree : + 4.0 RATED SPEED
Rated speed rpm : 881 guide sleeve	+ rack travel mm : 11.95
travel mm : 5.02 Tolerance mm : + 0.25	Rated speed rpm : 1345 Tolerance 1/min : +- 5
Rated speed rpm : 363 guide sleeve travel mm : 2.05 Tolerage mm : + 0.25	rack travel mm : 4.00 Rated speed rpm : 1470 Tolerance 1/min : + 15
Rates % peed rpm : 413 guide sleeve	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1550
travel mm : 2.44 Tolerance mm : + 0.25	
Rated speed rpm : 500 guide sleeve	LOW IDLE
travel mm : 2.99 Tolerance mm : + 0.25	control lever position degree : 80.0
Rated speed rpm : 1600	tolerance degree : + 4.0

Testing:

Rated speed rpm	:		300
rack travel mm	:		7.15
Tolerance mm	:	+-	0.10

Rated speed rpm 200

CRT mm min. : > 8.20

TORQUE CONTROL

Rated speed rpm	:		300
rack travel mm	:		12.95
Tolerance mm	:	+	0.05

Rated speed rpm 750 12.95 rack travel mm Tolerance mm 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	5 00
Pressure hPa	:	1000
rack travel mm	:	12.95
Tolerance mm	: -	

MEASUREMENT

Pressure hPa	:	
Rated speed rpm	:	500
Tolerance mm	•	 0.05

Rated speed rpm 500

350 Pressure hPa 1.70 rack travel mm : + 0.15 Tolerance mm

200 Pressure hPa rack travel mm 0.40 Tolerance mm : +- 0.05

START CUT-OUT

Rated	speed	rpm	: >	> 100
Rated	speed	rpm	: <	< 220

Check

speed 1/min : > 80

Check

speed 1/min : < 240

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1000 hPa Rated speed rpm 750 Del. quantity

cm3/1000 strokes : 86.0 Tolerance

cm3/1000 strokes : +-2.0 Check tolerance

4.0

1.0

cm3/1000s. Spreed

Tolerance cm3/1000 strokes :

5.0 Check tolerance cm3/1000s. 7.0

Aneroid pressure

Rated speed rpm 500

Del. quantity cm3/1000 strokes : 42.0 Tolerance

cm3/1000 strokes

Check tolerance cm3/1000s. 3.0

: +-

BREAKAWAY

Rack travel in mm: 11.95 Rated speed rpm : Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100

Del. quantity cm3/1000 strokes : 105.0

Tolerance

cm3/1000 strokes : +-5.0

Check tolerance

cm3/1000s. : +-8.0

LOW IDLE

Rated speed rpm 300 7.15 rack travel mm Tolerance mm 0.20 Del. quantity

cm3/1000 strokes : 12.0

Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3. 5
Check tolerance		
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.06.95 Test oil : ISO 4113

Combination No. : 0 403 446 319

Injection pump

Pump designation : PES6MW100/320RS1216

: -1

EP type number : 0 413 406 223

Governor

Governer design. : RQV275...1250MW124K

Governer no. : 0 420 083 989

Cust. part No. :

Customer-spec. information

Customer : RVI

Motor : MIDR 060226 U

Power KW : 110.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 033

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.25 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 13.00 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 13.25

Rack travel in mm : 13.25
Tolerance mm : + 0.05
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 106.0

Tolerance

cm3/1000 strokes : +- 1.0

	- guide sleeve
Check tolerance	- travel mm : 3.92
cm3/1000s. : + 3.0	- Tolerance mm : +- 0.25
Spreed	- Rated speed rpm : 1650
Tolerance	- guide sleeve
cm3/1000 strokes : 3.5	- travel mm : 13.50
	- Tolerance mm : +- 0.50
Check tolerance	
cm3/1000s. : 6.0	
CIID/10003 0.0	CUANE OF CHECK DOCTATON
	GUIDE SLEEVE POSITION
Rated speed rpm : 275	
-	- Rated speed rpm : 1350
Rack travel in mm: -7.20	, ,
Tolerance mm : + 0.20	- Rack travel in mm : 16.50
Del. quantity	Tolerance mm : + 1.30
cm3/1000 strokes : 21.0	-
Tolerance +	
cm3/1000 strokes : +- 2.0	- FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	. The state of the
cm3/1000s. : +- 4.5	- Rated speed rpm : 1250
Spreed	- Aneroid pressure
Tolerance	- hPa : -
cm3/1000 strokes : 3.5	- Del. quantity
Check tolerance	- cm3/1000 strokes : 106.0
cm3/1000s. : 5.0	- Tolerance
†	- cm3/1000 strokes : + 1.0
+	- Check tolerance
(B) SETTING OF INJECTION PUMP	- cm3/1000s. : + 3.0
WITH GOVERNOR	- Spreed
WITH GOVERNON	- Tolerance
	* · · · · · · · · · · · · · · · · · · ·
GUIDE SLEEVE TRAVEL	- Check tolerance
 	- cm3/1000s. : 6.0
Rated speed rpm : 275	-
guide steeve	
+novol 1 00 1	-
travel mm : 1.00	CONTROL A FIVED
travel mm : 1.00 Tolerance mm : + 0.25	- CONTROL LEVER
Tolerance mm : + 0.25	•
Tolerance mm : + 0.25	•
Tolerance mm : + 0.25 Rated speed rpm : 1344	· control lever
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve	- control lever - position degree : 300.0
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99	· control lever
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve	control lever position degree : 300.0 tolerance degree : + 4.0
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25	- control lever - position degree : 300.0
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25	control lever position degree : 300.0 tolerance degree : + 4.0
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25 Rated speed rpm : 390	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15 rack travel mm : -9.25
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25 Rated speed rpm : 390 guide sleeve	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15 rack travel mm : -9.25 Rated speed rpm : 1465
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25 Rated speed rpm : 390 guide sleeve travel mm : 2.39	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15 rack travel mm : -9.25
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25 Rated speed rpm : 390 guide sleeve	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15 rack travel mm : -9.25 Rated speed rpm : 1465 Tolerance 1/min : + 5
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25 Rated speed rpm : 390 guide sleeve travel mm : 2.39 Tolerance mm : + 0.25	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15 rack travel mm : -9.25 Rated speed rpm : 1465 Tolerance 1/min : + 5 rack travel mm : -12.70
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25 Rated speed rpm : 390 guide sleeve travel mm : 2.39	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15 rack travel mm : -9.25 Rated speed rpm : 1465 Tolerance 1/min : + 5 rack travel mm : -12.70 Tolerance mm : -12.70 Tolerance mm : + 0.50
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25 Rated speed rpm : 390 guide sleeve travel mm : 2.39 Tolerance mm : + 0.25 Rated speed rpm : 2.39 Tolerance mm : + 0.25	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15 rack travel mm : -9.25 Rated speed rpm : 1465 Tolerance 1/min : + 5 rack travel mm : -12.70 Tolerance mm : -12.70 Tolerance mm : + 0.50
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25 Rated speed rpm : 390 guide sleeve travel mm : 2.39 Tolerance mm : + 0.25 Rated speed rpm : 2.39 Tolerance mm : + 0.25	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15 rack travel mm : -9.25 Rated speed rpm : 1465 Tolerance 1/min : + 5 rack travel mm : -12.70 Tolerance mm : + 0.50
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25 Rated speed rpm : 390 guide sleeve travel mm : 2.39 Tolerance mm : + 0.25 Rated speed rpm : 2.39 Tolerance mm : 440 guide sleeve travel mm : 3.01	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15 rack travel mm : -9.25 Rated speed rpm : 1465 Tolerance 1/min : + 5 rack travel mm : -12.70 Tolerance mm : -12.70 Tolerance mm : + 0.50
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25 Rated speed rpm : 390 guide sleeve travel mm : 2.39 Tolerance mm : + 0.25 Rated speed rpm : 2.39 Tolerance mm : + 0.25	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15 rack travel mm : -9.25 Rated speed rpm : 1465 Tolerance 1/min : + 5 rack travel mm : -12.70 Tolerance mm : -12.70 Tolerance mm : + 0.50
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25 Rated speed rpm : 390 guide sleeve travel mm : 2.39 Tolerance mm : + 0.25 Rated speed rpm : 440 guide sleeve travel mm : 3.01 Tolerance mm : + 0.25	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15 rack travel mm : -9.25 Rated speed rpm : 1465 Tolerance 1/min : + 5 rack travel mm : -12.70 Tolerance mm : + 0.50 Rated speed rpm : 1600
Tolerance mm : + 0.25 Rated speed rpm : 1344 guide sleeve travel mm : 9.99 Tolerance mm : + 0.25 Rated speed rpm : 924 guide sleeve travel mm : 6.77 Tolerance mm : + 0.25 Rated speed rpm : 390 guide sleeve travel mm : 2.39 Tolerance mm : + 0.25 Rated speed rpm : 2.39 Tolerance mm : 440 guide sleeve travel mm : 3.01	control lever position degree : 300.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : -1.00 Rated speed rpm : 1310 Tolerance 1/min : + 15 rack travel mm : -9.25 Rated speed rpm : 1465 Tolerance 1/min : + 5 rack travel mm : -12.70 Tolerance mm : -12.70 Tolerance mm : + 0.50

control lever position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: + 4.0 : 275 : -7.20 : + 0.20 : 200	Tolerance cm3/1000 strokes: 5.0 Check tolerance cm3/1000s. : 7.0 Aneroid pressure hPa : - Rated speed rpm : 700 Del. quantity cm3/1000 strokes: 57.0 Tolerance cm3/1000 strokes: + 4.0 Check tolerance cm3/1000s. : + 7.5
TORQUE CONTROL		BREAKAWAY
Rated speed rpm rack travel mm Tolerance mm	: 13.25 : + 0.05 : 700	Rack travel in mm: -1.00 Rated speed rpm: 1310 Tolerance 1/min: +- 15
rack travel mm Tolerance mm	: −1.35 : ← 0.05	STARTING FUEL DELIVERY
Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: +- 0.10 : 350 : -2.40	Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75 Del. quantity cm3/1000 strokes : 95.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 13.0
START CUT-OUT		Ţ
Rated speed rpm Rated speed rpm		LOW IDLE
Check speed 1/min Check speed 1/min	: > 130 : < 245	Rated speed rpm : 275
FUEL DELIVERY CHA	RACTERISTICS	cm3/1000 strokes : + 2.0 Check tolerance
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes		- cm3/1000s. : + 4.5 - Spreed - Tolerance - cm3/1000 strokes : 3.5 - Check tolerance
Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: + 1.5 : + 4.0	+ cm3/1000s. : 5.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 28.06.95 Edition Test oil : ISO 4113

Combination No. : 0 403 474 016

Injection pump

Pump designation : PES4MW100/720RS1212

EP type number : 0 413 404 114

Governor

Governer design. : RSV350...1300MW0A346

Governer no. : 0 420 085 175

Cust. part No. :

Customer-spec. information

Customer : MB-NFZ Motor : 0M364LA Power KW : 102.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 : + 1.5 Tolerance bar

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : ← 0.50

Check

tolerance 'NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.25 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 104.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance

Check tolerance	+ tolerance degree : +- 4.0
cm3/1000s. : 6.0	+
Antad aroad are . ZEO	RATED SPEED
Rated speed rpm : 350	rack travel mm : 1.00
Rack travel in mm : 6.40	+ Tolerance mm : $+$ 0.70
Tolerance mm : + 0.40	Rated speed rpm : 1500
Del. quantity cm3/1000 strokes : 12.0	t rack travel mm · / 00
Tolerance	rack travel mm : 4.00 Rated speed rpm : 1425
cm3/1000 strokes : + 2.0	+
Check tolerance cm3/1000S. : +- 4.5	rack travel mm : 12.20 Rated speed rpm : 1353
Spreed	+ Tolerance 1/min : + 8
Tolerance	+
cm3/1000 strokes : 3.5	+ ASSEMBLY GOVERNOR SETTING
Check tolerance cm3/1000S. : 5.5	Rated speed rpm : 1340
. 5.5	Rated speed rpm : 1340 rack travel mm : 12.25
(5) 05-5110 05 5115-5151	+
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ Rated speed rpm : 1384 + Tolerance 1/min : + 4
WITH GOVERNOR	+ rack travel mm : 4.00
	+
GUIDE SLEEVE POSITION	Rated speed rpm : 1341 rack travel mm : 12.25
001DE SEEEVE : 001710W	+ Tack Cravet man . 12.25
Rated speed rpm : 800	Rated speed rpm : 1385
Rack travel in mm : 0.65	+ Tolerance 1/min : +- 4 + rack travel mm : 4.00
Tolerance mm : + 0.35	4
	Rated speed rpm : 1342 rack travel mm : 12.25
governor spring pre-tension	† rack travel mm : 12.25
click setting x : 4.00	Rated speed rpm : 1386
	+ Tolerance 1/min : + 4
FULL LOAD DELIVERY AT FULL LOAD STOP	+ rack travel mm : 4.00
FOLE BOAD DELIVERY AT TOLE BOAD OTO	Rated speed rpm : 1343
Rated speed rpm : 1300	rack travel mm : 12.25
Aneroid pressure hPa : 700	Rated speed rpm : 1387
Del. quantity	+ Tolerance 1/min : + 4
cm3/1000 strokes : 104.0	rack travel mm : 4.00
Tolerance cm3/1000 strokes : +- 1.0	+ + Rated speed rpm : 1344
Check tolerance	rack travel mm : 12.25
cm3/1000s. : +- 3.0	+
Spreed Tolerance	+ Rated speed rpm : 1388 + Tolerance 1/min : +- 4
cm3/1000 strokes : 3.5	+ rack travel mm : 4.00
Check tolerance	+
cm3/1000s. : 6.0	+ Rated speed rpm : 1345 + rack travel mm : 12.25
	T idea claver min : 12.23
	Rated speed rpm : 1389
CONTROL LEVER	+ Tolerance 1/min : +- 4 + rack travel mm : 4.00
control lever	T 1900 C1 4.00
position degree : 108.0	+

LOW IDLE

Setting point w/out bumper spring

Rated speed rpm : 350 rack travel mm : 6.40

Testing:

rack travel mm : 2.00
Rated speed rpm : 460
Tolerance 1/min : +- 30

Rated speed rpm : 100

CRT mm min. : > 19.00

TORQUE CONTROL

Rated speed rpm : 1300 rack travel mm : 13.25 Tolerance mm : + 0.05

Rated speed rpm : 600 rack travel mm : 13.25 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 700
rack travel mm : 13.25
Tolerance mm : +- 0.10

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
Tolerance mm : + 0.05

Rated speed rpm : 500

Pressure hPa : 400 rack travel mm : 2.55 Tolerance mm : + 0.10

Pressure hPa : 200 rack travel mm : 0.85 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 700 Rated speed rpm : 600

Del. quantity

cm3/1000 strokes : 93.0

Tolerance

cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.0 Spreed

Tolerance

cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 7.0

Aneroid pressure

Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 37.0

Tolerance

cm3/1000 strokes : + 1.0 Check tolerance

cm3/1000s. : + 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 90.0
Tolerance
cm3/1000 strokes : +- 5.0
Check tolerance

8.0

LOW IDLE

cm3/1000s.

Rated speed rom : 350
rack travel mm : 6.40
Tolerance mm : + 0.40
Del. quantity
cm3/1000 strokes : 12.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s : + 4.5

Spreed Tolerance

Check tolerance cm3/1000s.	:	5.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20.04.95 : ISO 4113 Test oil

Combination No. : 0 403 476 027

Injection pump

Pump designation : PES6MW100/720RS1144 EP type number : 0 413 406 138

Governor

Governer design. : RSV350...1300MW0A316

: -6

: 0 420 085 098 Governer no.

Cust. part No. :

Customer-spec. information Customer : MB-NFZ Motor : OM366A Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 : + 2.0 Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 : ← 1.5 Tolerance bar

Test Lines : 1 680 750 015

Outside diameter : 6.0 x inside diameter: 3.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : + 1.0

Prestroke mm 3.75 Tolerance mm : + 0.05Check tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.50

Check

: + 0.75tolerance 'NW

BASIC SETTING

1300 Rated speed rpm :

Rack travel in mm: 10.75 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 73.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : ← 3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

J03

		+		
Check tolerance		1	control lever	
cm3/1000s.	: 6.0	1	position degree	: 110.0
		1	tolerance degree	
Rated speed rpm	: 350	1	10 to, a. 10 dog. co	
nated speed i piii	. 330	1	RATED SPEED	
Rack travel in mm	• 7.30	1	WATER OF EED	
	: +- 0.30	T	rack travel mm	: 1.00
Del. quantity	0.30	T	Tolerance mm	
cm3/1000 strokes	: 10.0	T		
	: 10.0	Ť	Rated speed rpm	: 1450
Tolerance		T		. / 00
cm3/1000 strokes	: +- 2.0	†	rack travel mm	: 4.00
Check tolerance		†	Rated speed rpm	: 1415
	: +- 4.5	†		
Spreed		†	rack travel mm	
Tolerance	- -	+	Rated speed rpm	
cm3/1000 strokes	: 3.5	+	Tolerance 1/min	: +- 8
Check tolerance		+		
cm3/1000s.	: 5.5	+	ASSEMBLY GOVERNOR	SETTING
		+		
		+	Rated speed rpm	: 1340
(B) SETTING OF INJI	ECTION PUMP	+	rack travel mm	: 9.70
WITH GOVERNOR		+		
		1	Rated speed rpm	: 1384
		1	Tolerance 1/min	
		1	rack travel mm	4.00
GUIDE SLEEVE POSIT	TÄN	1	rack travet min	. 4.00
COIDE CEEEVE / COIT.	LOI¥	1	Rated speed rpm	: 1341
Rated speed rpm :	: 800	\mathbf{I}	rack travel mm	
Raced Speed rpm	. 000	T	rack chavet in	. 7.70
Rack travel in mm	0.45	Ţ	Rated speed rpm	: 1385
Tolerance mm		T	Tolerance 1/min	
roterance mm	: +- 0.35	T		
		7	rack travel mm	: 4.00
governor spring		†	Batadana dana	47/0
pre-tension	4 00	+	Rated speed rpm	: 1342
click setting x	: 4.00	+	rack travel mm	: 9.70
		+		4707
		+	Rated speed rpm	
FULL LOAD DELIVERY	AT FULL LOAD STOP	+	Tolerance 1/min	
		+	rack travel mm	: 4.00
Rated speed rpm :	1300	+		
Aneroid pressure		+	Rated speed rpm	: 1343
hPa :	-	+	rack travel mm	: 9.70
Del. quantity		+		
cm3/1000 strokes :	73.0	÷	Rated speed rpm	: 1387
Tolerance		+	Tolerance 1/min	: +- 4
cm3/1000 strokes :	+- 1.0	1	rack travel mm	: 4.00
Check tolerance		1		
cm3/1000s. :	+ 3.0	1	Rated speed rpm	: 1344
Spreed		1	rack travel mm	9.70
Tolerance		1	. 4011 01 4702 1711	. ,
cm3/1000 strokes :	3.5	1	Rated speed rpm	: 1388
Check tolerance	3.5	1	Tolerance 1/min	: +- 4
	6.0	1	rack travel mm	4.00
cm3/1000s. :	0.0	I	I GON CI GYCL IIHII	• 4.00
		I	Rated speed rpm	: 1345
		T	rack travel mm	: 9.70
CONTROL LEVER		T	I AUN LI AVEL IIRII	. 7.18
CONTROL LEVER		T	Dated anced non	: 1389
		Ť	Rated speed rpm	
		+	Tolerance 1/min	: +- 4

rack travel mm	: 4.00	+ Del. quantity + cm3/1000 strokes : 74.0
LOW IDLE		- + Tolerance + cm3/1000 strokes : +- 1.5 + Check tolerance
Setting point w/c	out bumper spring	cm3/1000s. : +- 4.0
Rated speed rpm rack travel mm	: 350 : 7.30	+
Testing:		STARTING FUEL DELIVERY
rack travel mm Rated speed rpm Tolerance 1/min	: 475	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 83.0
Rated speed rpm	: 100	Tolerance cm3/1000 strokes : +- 5.0 Check tolerance
CRT mm min.	: > 19.00	cm3/1000s. : +- 8.0
TORQUE CONTROL	anganithe and a second	-
Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Tolerance mm	: 10.75 : ← 0.05 : 700 : 12.35 : ← 0.05 : 825 : 12.00 : ← 0.10	LOW IDLE
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes		End of test specification sheet
Check tolerance cm3/1000s. Spreed Tolerance	: +- 4.0	† †
cm3/1000 strokes Check tolerance cm3/1000s.	: 5.0 : 7.0	† †
Aneroid pressure hPa		<u> </u>
nra Rated speed rpm	825	-

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 20,04.95 Edition Test oil : ISO 4113

Combination No. : 0 403 476 054

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design. : RSV350...1200MW0A316

: -7

: 0 420 085 092 Governer no.

Cust. part No. : 0150747302

Customer-spec. information Customer : MB-NFZ : OM366A Motor : 115.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

208.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0 x inside diameter: 3.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

31.0 Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 3.75 : ÷- 0.05 Tolerance mm Check

: + 0.10tolerance mm Rack travel in mm: 10.50

Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300 Tolerance : + 0.50

Check

: +- 0.75 tolerance *NW

BASIC SETTING

1200 Rated speed rpm :

Rack travel in mm: 12.05 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 81.5

Tolerance cm3/1000 strokes : +-1.0

Check tolerance

: +-3.0 cm3/1000s.

Spreed

Tolerance

3.5 cm3/1000 strokes :

J06

	+		
Check tolerance		control lever	
cm3/1000s. : 6.0		position degree	: 103.0
CHIST 10003 0.0	T		
	†	tolerance degree	: +- 4.0
Rated speed rpm : 350	+		
	+	RATED SPEED	
Rack travel in mm: 7.30	+		
Tolerance mm : +- 0.30	1	rack travel mm	: 1.00
Del. quantity	T	Tolerance mm	: ← 0.70
	T		
cm3/1000 strokes : 10.0	†	Rated speed rpm	: 1450
Tolerance	+		
cm3/1000 strokes : +- 2.0	+	rack travel mm	: 4.00
Check tolerance	+	Rated speed rpm	: 1340
cm3/1000s. : +- 4.5	1	•	
Spreed	1	rack travel mm	: 11.00
Tolerance	1	Rated speed rpm	
	T		
	†	Tolerance 1/min	: +- 8
Check tolerance	+		
cm3/1000s. : 5.5	+	ASSEMBLY GOVERNOR	SETTING
	+		
	1	Rated speed rpm	: 1240
(B) SETTING OF INJECTION PUMP	1	rack travel mm	
	T	rack cravet inii	. 11.00
WITH GOVERNOR	Ť	5	4200
	Ť	Rated speed rpm	: 1289
	ŧ	Tolerance 1/min	
	 +	rack travel mm	: 4.00
GUIDE SLEEVE POSITION	+		
	1	Rated speed rpm	: 1241
Rated speed rpm : 800	1	rack travel mm	: 11.00
Nated Speed (pill : 000	<u> </u>	THE CTAVE MAIN	. 17.00
Rack travel in mm: 0.65	T	Poted speed nom	: 1290
	Ť	Rated speed rpm	
Tolerance mm : + 0.35	†	Tolerance 1/min	
	+	rack travel mm	: 4.00
governor spring	+		
pre-tension	+	Rated speed rpm	: 1242
click setting x : 3.00	+	rack travel mm	: 11.00
	<u> </u>		
	1	Rated speed rpm	: 1291
FULL LOAD DELIVERY AT FULL LOAD S	TOP I	Tolerance 1/min	: +- 4
TOLE COAD DELIVERY AT TOLE COAD C	1	rack travel mm	4.00
Dated aread non a 1000	T	Tack Clavet IIII	. 4.00
Rated speed rpm : 1200	Ť	D-4-4	. 40/7
Aneroid pressure	†	Rated speed rpm	
hPa : -	+	rack travel mm	: 11.00
Del. quantity	+		
cm3/1000 strokes : 81.5	+	Rated speed rpm	: 1292
Tolerance	+	Tolerance 1/min	: ← 4
cm3/1000 strokes : +- 1.0	1	rack travel mm	: 4.00
Check tolerance	1	t don't di dvee iiiii	. ,,,,,
	<u>T</u>	Dated around man	: 1244
	Ť	Rated speed rpm	
Spreed	†	rack travel mm	: 11.00
Tolerance	+		
cm3/1000 strokes : 3.5	+	Rated speed rpm	: 1293
Check tolerance	+	Tolerance 1/min	; +- 4
cm3/1000s. : 6.0	1	rack travel mm	: 4.00
	1		. ,,,,,
	1	Rated speed rpm	: 1245
	T		
BANEDOL LENED		rack travel mm	: 11.00
CONTROL LEVER	†	5.4.1	4001
		Rated speed rpm	: 1294
	+	Tolerance 1/min	: +- 4
	•		

LOW IDLE	
Testing:	
Rated speed rpm	: 350
rack travel mm	: 7.30
Tolerance mm	: +- 0.30
rack travel mm	
Rated speed rpm Tolerance 1/min	: 475
Toterance Thirm	: +- 30
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	
Rated speed rpm	: 1200
rack travel mm	: 12.05
Tolerance mm	: ← 0.05
Rated speed rpm	: 750
rack travel mm	: 12.55
Tolerance mm	: ← 0.05
Rated speed rpm	: 1000
rack travel mm Tolerance mm	: 12.20 : + 0.10
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa Rated speed rpm	: - : 750
Del. quantity	. 150
cm3/1000 strokes	: 76.5
Tolerance	: +- 1.5
cm3/1000 strokes Check tolerance	. — 1.5
cm3/1000s.	: +- 4.0
Spreed	
Tolerance cm3/1000 strokes	: 5.0
Check tolerance	: 5.0
	: 7.0
cm3/1000s.	

Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 20.00 : + 1.00 : 83.0 : + 5.0 : + 8.0
LOW IDLE	
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 350 : 7.30 : + 0.30 : 10.0 : + 2.0 : + 4.5 : 3.5 : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20.04.95 Test oil : ISO 4113

Combination No. : 0 403 476 055

Injection pump

Pump designation : PES6MW100/720RS1144 EP type number : 0 413 406 138

Governor

Governer design. : RSV350...1200MW0A316

: -8

Governer no. : 0 420 085 097

Cust. part No. :

Customer-spec. information
Customer : MB-NFZ
Motor : OM366A
Power KW : 92.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm: 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 9.85

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 63.0

and food strokes . 03.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : + 3.0

Spreed

Tolerance

	_ T
Check tolerance cm3/1000S. : 6.0	control lever position degree
Rated speed rpm : 350	tolerance degree
	RATED SPEED
ack travel in mm : 6.60	†
olerance mm : + 0.30 el. quantity	+ rack travel mm + Tolerance mm
n3/1000 strokes : 10.0	+ Rated speed rpm
blerance	+
cm3/1000 strokes : + 2.0	† rack travel mm
Check tolerance cm3/1000s. : ← 4.5	+ Rated speed rpm
m3/1000s. :	† rack travel mm
folerance	Rated speed rpm
cm3/1000 strokes : 3.5	+ Tolerance 1/min
Check tolerance	+
m3/1000s. : 5.5	+ ASSEMBLY GOVERNOR
	+ Rated speed rpm
B) SETTING OF INJECTION PUMP ITH GOVERNOR	+ rack travel mm
	Rated speed rpm
	† Tolerance 1/min
JIDE SLEEVE POSITION	rack travel mm
VANE VELETE I VVALLUIT	Rated speed rpm
ated speed rpm : 800	rack travel mm
ack travel in mm : 0.65	Rated speed rpm
olerance mm : + 0.35	+ Tolerance 1/min
	+ rack travel mm
overnor spring re—tension	Rated speed rpm
lick setting x : 4.00	+ rack travel mm
	+
UEL LOAD DELTHEDY AT THE LOAD STOD	+ Rated speed rpm
ULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance 1/min + rack travel mm
ated speed rpm : 1200	The state of the s
neroid pressure	Rated speed rpm
Pa : -	rack travel mm
el. quantity m3/1000 strokes : 63.0	Rated speed rpm
olerance	+ Tolerance 1/min
m3/1000 strokes : +- 1.0	rack travel mm
heck tolerance m3/1000s. : +- 3.0	+ Rated speed rpm
preed	+ rack travel mm
blerance	-
3/1000 ctrokec . 35	+ Rated speed rpm
eck tolerance 3/1000s. : 6.0	† Tolerance 1/min † rack travel mm
5/ 1UUU3. : 0.U	T TAUK LTAVEL MIN
	Rated speed rpm
	rack travel mm
NTROL LEVER	+ Pated speed nom
	+ Rated speed rpm + Tolerance 1/min
	1 .020. 4.100 17.1111

LOW IDLE	
Testing:	
Rated speed rpm	: 350
rack travel mm Tolerance mm	: 6.60 : +- 0.30
	V - 0100
rack travel mm	
Rated speed rpm Tolerance 1/min	: ← 30
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	
Rated speed rpm	: 1200
rack travel mm Tolerance mm	: 9.85 : +- 0.05
Rated speed rpm rack travel mm	: 800 : 10.75
Tolerance mm	: + 0.05
Rated speed rpm	: 950
rack travel mm Tolerance mm	
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa	: -
Rated speed rpm	800
Del. quantity cm3/1000 strokes	: 62.0
Tolerance	
cm3/1000 strokes Check tolerance	: ← 1.5
cm3/1000s.	: + 4.0
Spreed Tolerance	
cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 7.0

Rated speed rpm	: 100	
Del. quantity cm3/1000 strokes Tolerance	: 83.0	
cm3/1000 strokes Check tolerance	: +- 5.0	
cm3/1000s.	: +- 8.0	
LOW IDLE		-
Rated speed rpm	: 350	
rack travel mm	: 6.60	
Tolerance mm	: +- 0.30	
Del. quantity cm3/1000 strokes Tolerance	: 10.0	
1 9 201 47700		
cm3/1000 strokes	: +- 2.0	
cm3/1000 strokes Check tolerance cm3/1000s.	: +- 2.0 : +- 4.5	

3.5

5.5

End of test specification sheet

Spreed
Tolerance
cm3/1000 strokes :

Check tolerance cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20,04,95 Test oil : ISO 4113

Combination No. : 0 403 476 056

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design. : RSV350...1200MW0A316

: -5

Governer no. : 0 420 085 090

Cust. part No. :

Customer-spec. information

Customer : MB-NFZ : 0M366A Motor Power KW : 100.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar : + 1.5 Tolerance bar

Test Lines : 1 680 750 015

Outside diameter : 6.0 x inside diameter : 3,0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : + 1.0

Prestroke mm 3.75 : + 0.05Tolerance mm

Check

tolerance mm : + - 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : **←** 0.50

Check

tolerance °NW : +~ 0.75

BASIC SETTING

1200 Rated speed rpm :

Rack travel in mm: 10.25 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 70.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

: +- 3.0 cm3/1000s.

Spreed

Tolerance

	†
Check tolerance	control lever
cm3/1000s. : 6.0	+ position degree : 102.0 + tolerance degree : + 4.0
Rated speed rpm : 350	+
Rack travel in mm : 6.40	+ RATED SPEED
Tolerance mm : + 0.30	rack travel mm : 1.00
Del. quantity	+ Tolerance mm : + 0.70
cm3/1000 strokes : 10.0	Rated speed rpm : 1450
Tolerance	+
cm3/1000 strokes : + 2.0	rack travel mm : 4.00 Rated speed rpm : 1315
Check tolerance cm3/1900s. : +- 4.5	Rated speed rpm : 1315
Spreed	rack travel mm : 9.20
Tolerance	+ Rated speed rpm : 1248
cm3/1000 strokes : 3.5	+ Tolerance 1/min : + 8
Check tolerance	+
cm3/1000s. : 5.0	+ ASSEMBLY GOVERNOR SETTING
	Rated speed rpm : 1240
(B) SETTING OF INJECTION PUMP	+ rack travel mm : 9.20
WITH GOVERNOR	Rated speed rpm : 1284
	+ Rated speed rpm : 1284 + Tolerance 1/min : + 4
	+ rack travel mm : 4.00
GUIDE SLEEVE POSITION	+
	+ Rated speed rpm : 1241
Rated speed rpm : 800	rack travel mm : 9.20
Rack travel in mm : 0.65	Rated speed rpm : 1285
Tolerance mm : + 0.35	+ Tolerance 1/min : +- 4
	rack travel mm : 4.00
governor spring pre-tension	Rated speed rpm : 1242
click setting x : 4.00	rack travel mm : 9.20
	+
	+ Rated speed rpm : 1286
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance 1/min : + 4 + rack travel mm : 4.00
Rated speed rpm : 1200	T rack travet mm : 4.00
Aneroid pressure	Rated speed rpm : 1243
hPa : -	+ rack travel mm : 9.20
Del. quantity	1207
cm3/1000 strokes : 70.0 Tolerance	+ Rated speed rpm : 1287 + Tolerance 1/min : + 4
cm3/1000 strokes : +- 1.0	rack travel mm : 4.00
Check tolerance	+
cm3/1000s. : + 3.0	Rated speed rpm : 1244
Spreed	+ rack travel mm : 9.20
Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 1288
Check tolerance	Tolerance 1/min : + 4
cm3/1000s. : 6.0	+ rack travel mm : 4.00
	† 5.1.1
	Rated speed rpm : 1245 rack travel mm : 9.20
CONTROL LEVER	T Tack Cravet (iii) : 9.20
₩ ₩ 2 T T F T W No No. Log F No. 1 T	Rated speed rpm : 1289
	+ Tolerance 1/min : + 4

rack travel mm	: 4.00
LOW IDLE	
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 6.40 : + 0.30
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 445 : + 30
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1200 : 10.25 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 800 : 11.15 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 900 : 11.10 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 1050 : 10.60 : + 0.10
FUEL DELIVERY CHA	
Aneroid pressure hPa Rated speed rpm	: - : 800
Del. quantity cm3/1000 strokes	: 70.0
Tolerance cm3/1000 strokes	: + 1.5
Check tolerance cm3/1000S. Spreed	: +- 4.0
Tolerance cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 7.0

STARTING FUEL DEL	IVERY	
Rated speed rpm rack travel mm Tolerance mm	: : : +-	100 20.00 1.00
Del. quantity cm3/1000 strokes Tolerance	:	83.0
cm3/1000 strokes Check tolerance	: +-	5.0
cm3/1000s.	: +-	8.0
LOW IDLE		
S. I. I I		
Rated speed rpm	:	350
rack travel mm Tolerance mm	: +-	350 6.40 0.30
rack travel mm	: +-	6.40
rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: +-	6.40 0.30
rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: +-	6.40 0.30 10.0
rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +-	6.40 0.30 10.0 2.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.06.95 Test oil : ISO 4113

Combination No. : 0 403 476 066

Injection pump

Pump designation : PES6MW100/720RS1130

EP type number : 0 413 406 122

Governor

Governer design. : RSV350...1300MW0A318

: -5

Governer no. : 0 420 085 100

Cust. part No. :

Customer—spec. information Customer : MB-NFZ Motor : OM 366 A Power KW : 130.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance $^{\circ}NW$: +- 0.75

BASIC SETTING

Rated speed rpm : 1280

Rack travel in mm : 11.05Tolerance mm : +0.05

Del. quantity

cm3/1000 strokes : 83.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

	T
Check tolerance	+ control lever
cm3/1 000 s. : 6.0	+ position degree : 109.0
	+ tolerance degree : +- 4.0
Rated speed rpm : 350	†
	+ RATED SPEED
Rack travel in mm: 8.00	†
Tolerance mm : + 0.25	+ rack travel mm : 10.00
Del. quantity	+ Rated speed rpm : 1335
cm3/1000 strokes : 11.0	+ Tolerance 1/min : +- 5
Tolerance	+
cm3/1000 strokes : +- 2.0	+ rack travel mm : 4.00
Check tolerance	+ Rated speed rpm : 1415
cm3/1000s. : +- 4.5	† Tolerance 1/min : + 15
Spreed	+
Tolerance	+ rack travel mm : 1.00
cm3/1000 strokes : 3.5	+ Tolerance mm : + 0.70
Check tolerance	Rated speed rpm : 1560
cm3/1000s. : 5.5	+
	+
	+
(B) SETTING OF INJECTION PUMP	+ LOW IDLE
WITH GOVERNOR	
	+
	+ control lever
	+ position degree : 79.0
GUIDE SLEEVE POSITION	+ tolerance degree : + 4.0
	+
Rated speed rpm : 800	+ Testing:
Rack travel in mm: 0.65	+ Rated speed rpm : 350
Tolerance mm : \leftarrow 0.35	rack travel mm : 8.00
	rack travel mm : 8.00 Tolerance mm : + 0.10
governor spring	1
pre-tension	rack travel mm : 2.00
click setting x : 4.00	Rated speed rpm : 500
	+ Tolerance 1/min : + 30
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 100
	4
Rated speed rpm : 1280	+ CRT mm min. :> 19.00
Aneroid pressure	4
hPa : -	
Del. quantity	TORQUE CONTROL
cm3/1000 strokes : 83.0	1
Tolerance	Rated speed rpm : 1280
cm3/1000 strokes : +- 1.0	+ rack travel mm : 11.05
Check tolerance	rack travel mm : 17.05 Tolerance mm : + 0.05
cm3/1000s. : +- 3.0	1000 0100 11111
Spreed	Rated speed rom · 750
Tolerance	Rated speed rpm : 750 - rack travel mm : 11.05 - Tolerance mm : + 0.10
cm3/1000 strokes : 3.5	Tolerance mm + 0.10
Check tolerance	
cm3/1000s. : 6.0	I
LHD/ 10003 0.0	\mathbf{I}
	${f I}$
CONTROL LEVED	T EHEL DELTHEDY CHADACTEDICTICS
CONTROL LEVER	+ FUEL DELIVERY CHARACTERISTICS
	†

Aneroid pressure	: -
Rated speed rpm	: 750
Del. quantity	
cm3/1000 strokes	: 71.0
Tolerance	
cm3/1000 strokes	: +- 1.5
Check tolerance	
cm3/1000s.	: +- 4.0
Spreed	
Tolerance	
cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 7.0
CIIDA 10003.	. 7.0

BREAKAWAY

Rack travel in mm: 10.00 Rated speed rpm : 1335 Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm Del. quantity cm3/1000 strokes : 83.0 Tolerance cm3/1000 strokes : +-5.0 Check tolerance

100

8.0

LOW IDLE

cm3/1000s.

350 Rated speed rpm 8.00 rack travel mm 0.25 Tolerance mm Del. quantity cm3/1000 strokes : 11.0 Tolerance 2.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 4.5 : +-Spreed Tolerance 3.5 cm3/1000 strokes : Check tolerance 5.5 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20.04.95 Test oil : ISO 4113

Combination No. : 0 403 476 067

Injection pump

Pump designation : PES6MW100/720RS1131

EP type number : 0 413 406 123

Governor

Governer design. : RSV350...1300MWOA2

Governer no. : 0 420 085 109

Cust. part No. :

Customer—spec. information Customer : MB-NFZ Motor : OM 366 LA Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. *C : 40 Tolerance *C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05
Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance "NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 12.65 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 101.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance cm3/1000 strokes	: 3.5	†	control lever	: 98.0
Check tolerance cm3/1000s.	: 6.0	+	tolerance degree	
Rated speed rpm	: 350	‡	RATED SPEED	4.00
Rack travel in mm Tolerance mm Del. quantity	: 6.55 : + 0.35	‡	rack travel mm Tolerance mm Rated speed rpm	: 1.00 : + 0.70 : 1600
cm3/1000 strokes Tolerance	: 11.0	‡	rack travel mm Rated speed rpm	: 4.00 : 1435
cm3/1000 strokes Check tolerance	: - 2.0	Ì	rack travel mm	: 11.60
cm3/1000s. Spreed Tolerance	: + 4.5	Ŧ	Rated speed rpm Tolerance 1/min	: 1343
cm3/1000 strokes Check tolerance	: 3.5	+	ASSEMBLY GOVERNOR	SETTING
cm3/1000s.	: 5.5	<u> </u>	Rated speed rpm rack travel mm	: 1340 : 11.60
(B) SETTING OF IN	JECTION PUMP	Ŧ	Rated speed rpm	: 1391
WITH GOVERNOR		Ī	Tolerance 1/min rack travel mm	: +- 4 : 4.00
		‡	Rated speed rpm	: 1341
GUIDE SLEEVE POSI	TION	+	rack travel mm	: 11.60
Rated speed rpm	: 800	Ŧ	Rated speed rpm Tolerance 1/min	: 1392 : + 4
Rack travel in mm Tolerance mm	: 0.65 : + 0.35	Ī	rack travel mm	: 4.00
governor spring		‡	Rated speed rpm rack travel mm	: 1342 : 11.60
pre-tension click setting x	: 5.75	‡	Rated speed rpm	: 1393
		‡	Tolerance 1/min rack travel mm	: +- 4 : 4.00
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	1	Rated speed rpm	: 1343
Rated speed rpm Aneroid pressure	: 1300	7	rack travel mm	: 11.60
hPa	: 1000		Rated speed rpm	: 1394
Del. quantity cm3/1000 strokes	: 101.0		Tolerance 1/min rack travel mm	: ← 4 : 4.00
Tolerance cm3/1000 strokes	: +- 1.0	‡	Rated speed rpm	: 1344
Check tolerance cm3/1000s.	: +- 3.0		rack travel mm	: 11.60
Spreed			Rated speed rpm	: 1395
Tolerance cm3/1000 strokes	: 3.5		Tolerance 1/min rack travel mm	: +- 4
Check tolerance cm3/1000s.	: 6.0		Rated speed rpm rack travel mm	: 1345 : 11.60
		1	Rated speed rpm	: 1396
CONTROL LEVER			Tolerance 1/min	: +- 4

rack travel mm	: 4.00	
LOW IDLE		
Testing:		
Rated speed rpm rack travel mm Tolerance mm	: 350 : 6.55 : + 0.35	
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 450 : + 30	
Rated speed rpm	: 100	
CRT mm min.	: > 19.00	
TORQUE CONTROL	· · · · · · · · · · · · · · · · · · ·	
Rated speed rpm rack travel mm Folerance mm	: 1300 : 12.65 : + 0.05	
Rated speed rpm rack travel mm Folerance mm	: 600 : 12.65 : + 0.10	
ANEROID/ALTITUDE COMPENSATOR TEST		
SETTING		
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1000 : 12.65 : ← 0.10	
MEASUREMENT		
Pressure hPa Rated speed rpm Tolerance mm	: ~ : 500 : + 0.05	
Rated speed rpm	: 500	
Pressure hPa Pack travel mm Tolerance mm	: 400 : 1.40 : + 0.10	
ressure hPa ack travel mm	: 250 : 0.50	

FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure hPa Rated speed rpm	: 1000 : 600
Del. quantity cm3/1000 strokes	: 88.0
Tolerance cm3/1000 strokes	: + 1.5
Check tolerance cm3/1000s.	: +- 4.0
Spreed Tolerance cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	- -
Aneroid pressure	: 7.0
hPa	: -
Rated speed rpm Del. quantity	: 500
cm3/1000 strokes Tolerance	: 54.0
cm3/1000 strokes Check tolerance	: + 1.0
cm3/1000s.	: +- 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm	
Rated speed rpm Del. quantity cm3/1000 strokes	: 100
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 100
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 100 : 88.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 100 : 88.0 : ← 5.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 100 : 88.0 : ← 5.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm	: 100 : 88.0 : ← 5.0 : ← 8.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm	: 100 : 88.0 : ← 5.0 : ← 8.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 100 : 88.0 : ← 5.0 : ← 8.0 : 350 : 6.55
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 100 : 88.0 : + 5.0 : + 8.0 : 350 : 6.55 : + 0.35
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 88.0 : + 5.0 : + 8.0 : 350 : 6.55 : + 0.35 : 11.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 100 : 88.0 : + 5.0 : + 8.0 : 350 : 6.55 : + 0.35 : 11.0 : + 2.0

cm3/1000s.	:	5.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20.04.95 Test oil : ISO 4113

Combination No. : 0 403 476 077

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design. : RSV350...1300MWDA3

: 0 420 085 126 Governer no.

Cust. part No.

Customer-spec. information Customer : M8-NFZ : OM 366 LA Motor

: 127.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

173.5 bar Tolerance bar

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : + 1.0

Prestroke mm 3.75 : + 0.05Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.65 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 82.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

: +cm3/1000s. 3.0

Spreed

Tolerance

	+
Check tolerance	+ control lever
cm3/1000\$. : 6.0	position degree : 107.0
(IID) (0003	
750	tolerance degree : + 4.0
Rated speed rpm : 350	t
	+ RATED SPEED
Rack travel in mm : 6.55	+
Tolerance mm : +- 0.35	+ rack travel mm : 1.00
Del. quantity	
cm3/1000 strokes : 11.0	+ Rated speed rpm : 1550
Tolerance	+
cm3/1000 strokes : +- 2.0	+ rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1445
cm3/1000s. : +- 4.5	
	+ rack travel mm : 10.60
Spreed	
Tolerance	+ Rated speed rpm : 1343
cm3/1000 strokes : 3.5	† Tolerance 1/min : + 8
Check tolerance	+
cm3/1000s. : 5.0	ASSEMBLY GOVERNOR SETTING
1107 100001	1
	T Poted and and 17/0
	+ Rated speed rpm : 1340
(B) SETTING OF INJECTION PUMP	+ rack travel mm : 10.60
WITH GOVERNOR	+
	+ Rated speed rpm : 1401
	+ Tolerance 1/min : + 4
	+ rack travel mm : 4.00
OUTSE OF FOUR DOOTTION	T TACK CTAVECTION . 4.00
GUIDE SLEEVE POSITION	†
	+ Rated speed rpm : 1341
Rated speed rpm : 800	+ rack travel mm : 10.60
•	+
Rack travel in mm: 0.65	+ Rated speed rpm : 1402
Tolerance mm : +- 0.35	+ Tolerance 1/min : +- 4
roterance min . To 0.33	
	+ rack travel mm : 4.00
governor spring	+
pre-tension	+ Rated speed rpm : 1342
click setting x : 4.20	+ rack travel mm : 10.60
	1
	Rated speed rpm : 1403
FULL LOAD DELTHERY AT THE LOAD CTOD	
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance 1/min : + 4
	+ rack travel mm : 4.00
Rated speed rpm : 1300	· +
Aneroid pressure	+ Rated speed rpm : 1343
hPa : -	rack travel mm : 10.60
Del. quantity	1
	+ Rated speed rpm : 1404
Tolerance	+ Tolerance 1/min : + 4
cm3/1000 strokes : + 1.0	+ rack travel mm : 4.00
Check tolerance	+
cm3/1000s. : +- 3.0	Rated speed rpm : 1344
Spreed	+ rack travel mm : 10.60
Tolerance	THE CLAVE MAR. 19.00
	T 2010 1 200 1 200 1 200 1 200 1
cm3/1000 strokes : 3.5	+ Rated speed rpm : 1405
Check tolerance	+ Tolerance 1/min : + 4
cm3/1000s. : 6.0	+ rack travel mm : 4.00
	+
	Rated speed rpm : 1345
	rack travel mm : 10.60
CONTROL LEVED	T TACK CTAVEL HIRIT : 10.00
CONTROL LEVER	T 544
	+ Rated speed rpm : 1406
	+ Tolerance 1/min : +- 4
	•

LOW IDLE	
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 6.55 : + 0.35
rack travel mm Rated speed rpm Tolerance 1/min	
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1300 : 11.65 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 900 : 11.95 : ← 0.05
FUEL DELIVERY CHÂ	
hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	:
hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 77.5 : ← 1.5 : ← 4.0 : 5.0 : 7.0
hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 77.5 : ← 1.5 : ← 4.0 : 5.0 : 7.0

Tolerance cm3/1000 strokes : +- 5.0 Check tolerance cm3/1000s. : +- 8.0

LOW IDLE

350 Rated speed rpm : 6.55 rack travel mm : Tolerance mm : **←** 0.35 Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance 5.0 cm3/1000s. :

End of test specification sheet

cm3/1000 strokes :

85.0

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... Edition : 23.06.95 Test oil : ISO 4113 Combination No. : 0 403 476 081 Injection pump Pump designation : PES6MW100/720RS1196 : -1 : 0 413 406 219 EP type number Governor Governer design. : RSV350...1050MW0A338 : 0 420 085 138 Governer no. Cust. part No. :

Customer—spec. Customer Motor Power KW	information : LIEBHERR : D 916 T : 180.0	
TEST BENCH REG	UIREMENTS	
Inlet line	: 3.1	

Test oil inlet		
temp. °C	:	40
Tolerance °C	: +-	2.0

Overflow	valve	:	1	417	413	049

Inlet	press.	bar	:	1.5
-------	--------	-----	---	-----

Test nozzle	holde					
assembly		:	0 6	81	343	00

Opening pr	essure			
bar		:		173.5
Tolerance	bar	:	+	1.5

Test	lines	:	1	680	750	008

x inside diameter x length mm	: 2.0 : 600
REMARKS	
(A) INJECTION PUMP Set equal delivery per values	
BEGINNING OF DELIV	'ERY
Test pressure bar Tolerance bar	: 31.0 : + 1.0
Prestroke mm Tolerance mm Check tolerance mm	: 3.45 : + 0.05 : + 0.10
Rack travel in mm Tolerance mm	: 10.50 : +- 1.50
Firing order	: 1-5- 3- 6- 2- : 4
Phasing Tolerance Check tolerance °NW	: 0-60-120-180-240 : -300 : ← 0.50 : ← 0.75

rnasing	: -300
Tolerance	: ← 0.50
Check tolerance "NW	: ← 0.75

BASIC SETTING	
Rated speed rpm	: 1050
Rack travel in mm Tolerance mm	: 13.25 : + 0.05

Del. quantity cm3/1000 strokes	:	151.0
Tolomonos		

Tolerance cm3/1000 strokes	: +-	1.0
Check tolerance	• +-	3 በ

	•	0,0
Spreed Tolerance		
cm3/1000 strokes	:	3.5

	ı
Check tolerance	T control lever
cm3/1000s. : 6.0	position degree : 104.0
Retail aread area	tolerance degree : + 4.0
Rated speed rpm : 350	+ RATED SPEED
Rack travel in mm : 9.80	T MAILE OF ELD
Tolerance mm : ← 0.20	rack travel mm : 12.25
Del. quantity	+ Rated speed rpm : 1075
cm3/1000 strokes : 73.0	+ Tolerance 1/min : +- 5
Tolerance cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance	+ Rated speed rpm : 1140
cm3/1000s. : +- 4.5	+ Tolerance 1/min : + 10
Spreed	†
Tolerance cm3/1000 strokes : 3.5	+ rack travel mm : 1.00 + Tolerance mm : + 0.70
Check tolerance	Rated speed rpm : 1250
cm3/1000s. : 5.0	+
- · · -	rack travel mm : 4.00
(D) CETTING OF THE COTTON CITED	Rated speed rpm : 1190
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	İ
WITH GOVERNOR	
	+ LOW IDLE
	†
GUIDE SLEEVE POSITION	t + control lever
Rated speed rpm : 800	position degree : 76.0
The second part of the second pa	tolerance degree : + 4.0
Rack travel in mm: 0.65	+
Tolerance mm : + 0.35	Setting point w/out bumper spring
governor spring	Rated speed rpm : 350
pre-tension	rack travel mm : 6.70
click setting x : 5.00	+
	† Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Rated speed rpm : 350
FOLL LOAD DELIVER! AT FOLL LOAD STOP	+ Rated speed rpm : 350 + rack travel mm : 9.80
Rated speed rpm : 1050	+ Tolerance mm : + 0.20
Aneroid pressure	+
hPa : 1300	+ Rated speed rpm : 100
Del. quantity cm3/1000 strokes : 151.0	+ CRT mm min. :> 19.00
Tolerance	0111 um milit
cm3/1000 strokes : +- 1.0	+
Check tolerance	+ TORQUE CONTROL
cm3/1000s. : + 3.0	Rated speed rpm : 1050
Spreed Tolerance	+ rack travel mm : 13.25
cm3/1000 strokes : 3.5	+ Tolerance mm : + 0.05
Check tolerance	}
cm3/1000s. : 6.0	Rated speed rpm : 500
	+ rack travel mm : 13.25 + Tolerance mm : + 0.10
	T local diffe (i) 1
CONTROL LEVER	Rated speed rpm : 800
	rack travel mm : 13.25
	+ Tolerance mm : + 0.10

Rated speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm	: 14.75 : + 0.25	Check tolerance cm3/1000s. : +- 4.0 Aneroid pressure hPa : 600 Del. quantity cm3/1000 strokes : 113.5 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
Pressure hPa rack travel mm Tolerance mm	: 1300 : 13.25 : \(\dagger 0.05	BREAKAWAY
MEASUREMENT Pressure hPa Rated speed rpm Tolerance mm	: - : 600 : + 0.05	Rack travel in mm: 12.25 Rated speed rpm: 1075 Tolerance 1/min: + 5
Rated speed rpm	: 600	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm	: 1.95	Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75 Del. quantity cm3/1000 strokes : 132.0 Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 8.0
FUEL DELIVERY CHA	ARACTERISTICS	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure	: 145.0 : ← 1.5 : ← 4.0	Rated speed rpm : 350 rack travel mm : 9.80 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 73.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 5.0
hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 150.5	End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 25.04.95 Test oil : ISO 4113

Combination No. : 0 403 476 097

Injection pump

Pump designation : PES6MW100/720RS1131

: -1

EP type number : 0 413 406 165

Governor

Governer design. : RSV350...1300MW0A342

: -2

Governer no. : 0 420 085 157

Cust. part No. : 0200740002

Customer-spec. information Customer : MB-NFZ Motor : OM 366 LA Power KW : 177.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C :

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.65
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 15.65 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 117.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : + 3.0

Spreed		+	
Tolerance cm3/1000 strokes	: 3.5	CONTROL LEVED	
CHIDY TODO STITORES	: 3.3	+ CONTROL LEVER	
Check tolerance	**************************************	+ control lever	
cm3/1000s.	: 6.0	+ position degree	
Data dancad man	. 750	+ tolerance degree	: +- 4.0
Rated speed rpm	: 350	+ RATED SPEED	
Rack travel in mm	: 7.40	+	
Tolerance mm	: + 0.40	+ rack travel mm	: 1.00
Del. quantity	. 44.0	+ Tolerance mm	: + 0.70
cm3/1000 strokes Tolerance	: 11.0	+ Rated speed rpm	: 1600
cm3/1000 strokes	: ← 2.0	+ rack travel mm	: 4.00
Check tolerance		+ Rated speed rpm	: 1475
cm3/1000s.	; +- 4.5	+	44.45
Spreed Tolerance		rack travel mm Rated speed rpm	: 14.60 : 1345
cm3/1000 strokes	: 3.5	+ Tolerance 1/min	: +- 5
Check tolerance		+	• •
cm3/1000s.	: 5.5	ASSEMBLY GOVERNOR	SETTING
		† Datad anada ana	. 17/0
(B) SETTING OF INJ	IECTION PUMP	+ Rated speed rpm + rack travel mm	: 1340 : 14.65
WITH GOVERNOR	2012014 1 0111	+	. 14.05
		+ Rated speed rpm	: 1436
		† Tolerance 1/min	: +- 4
GUIDE SLEEVE POSIT	TON	+ rack travel mm	: 4.00
GOIDE SEEENE LOSII	104	Rated speed rpm	: 1341
Rated speed rpm	: 800	rack travel mm	: 14.65
D. 1. 1	0.45	†	A / ¬¬¬
Rack travel in mm Tolerance mm	: 0.65 : + 0.35	+ Rated speed rpm + Tolerance 1/min	: 1437 : +- 4
rocerance name	. += 0.55	rack travel mm	: 4.00
governor spring		+	
pre-tension		Rated speed rpm	: 1342
click setting x	: 4.00	rack travel mm	: 14.65
		Rated speed rpm	: 1438
FULL LOAD DELIVERY	AT FULL LOAD STOP	Tolerance 1/min	: + 4
	-	rack travel mm	: 4.00
	: 1300	† Bakad amaad ama	. 47/7
Aneroid pressure hPa	: 1000	Rated speed rpm rack travel mm	: 1343 : 14.65
Del. quantity	. 1000	Tack travet iiiii	. 14.05
	: 117.0	Rated speed rpm	: 1439
Tolerance	-	Tolerance 1/min	: + 4
U.M.D. 1000 00. U.100	: ← 1.0	rack travel mm	: 4.00
Check tolerance cm3/1000s.	: +- 3.0	Rated speed rpm	: 1344
Spreed	-	rack travel mm	: 14.65
Tolerance	-	1	
cm3/1000 strokes	: 3.5	Rated speed rpm	: 1440
Check tolerance	: 6.0	Tolerance 1/min rack travel mm	: +- 4 : 4.00
cm3/1000s.	. 0.0	T TALK LYAVEL MM	. 4.00
	_	Rated speed rpm	: 1345
		rack travel mm	: 14.65

1441 Rated speed rpm Tolerance 1/min rack travel mm 4.00 LOW IDLE Setting point w/out bumper spring 350 Rated speed rpm rack travel mm 7.40 Testing: 2.00 rack travel mm Rated speed rpm 460 30 Tolerance 1/min Rated speed rpm 100 CRT mm min. : > 19.00 TORQUE CONTROL 1300 Rated speed rom rack travel mm 15.65 Tolerance mm : +- 0.05 600 Rated speed rpm rack travel mm 15.65 : + 0.10Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING 500 Rated speed rpm 1000 Pressure hPa 15.65 rack travel mm Tolerance mm : + 0.10**MEASUREMENT** Pressure hPa Rated speed rpm 500 Tolerance mm : +- 0.05 Rated speed rpm 500 Pressure hPa 4 500 3.70 rack travel mm Tolerance mm 0.10 Pressure hPa 270

1.90

Tolerance mm : +- 0.10 FUEL DELIVERY CHARACTERISTICS Aneroid pressure 1000 hPa 600 Rated speed rpm Del. quantity cm3/1000 strokes : 112.0 Tolerance cm3/1000 strokes : +-1.5 Check tolerance cm3/1000s.4.0 Spreed Tolerance 5.0 cm3/1000 strokes : Check tolerance 7.0 cm3/1000s. Aneroid pressure hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 32.0 Tolerance cm3/1000 strokes 1.0 Check tolerance cm3/1000s. 3.0 : +-STARTING FUEL DELIVERY Rated speed rpm 100 Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : +-5.0 Check tolerance cm3/1000s. 8.0 : +-LOW IDLE Rated speed rpm 350 7.40 rack travel mm Tolerance mm 0.40 Del. quantity 11.0 cm3/1000 strokes :

Tolerance

Spreed

Check tolerance cm3/1000s.

cm3/1000 strokes : +-

2.0

4.5

: +-

rack travel mm

3.5

Tolerance cm3/1000 strokes : Check tolerance cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 03.05.95 Edition Test oil : ISO 4113

Combination No. : 0 403 476 105

Injection pump

Pump designation : PES6MW100/720RS1131 EP type number : 0 413 406 123

Governor

Governer design. : RSV350...1200MW0A342

: -8

: 0 420 085 171 Governer no.

Cust. part No. : 0210746702

Customer-spec. information Customer : MB-NFZ Motor : OM 366 A Power KW : 114.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 3.75 : + 0.05Tolerance mm Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

: 1-5-3-6-2-Firing order : 4

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 10.95 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 84.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 3.0

Spreed

Tolerance cm3/1000 strokes	: 3.5	‡	control lever	: 104.0
Check tolerance cm3/1000s.	: 6.0	1	tolerance degree	
Rated speed rpm	: 350	‡	RATED SPEED	4.00
Rack travel in mm Tolerance mm Del. quantity	: 6.15 : + 0.35	‡	rack travel mm Tolerance mm Rated speed rpm	: 1.00 : +- 0.70 : 1450
cm3/1000 strokes Tolerance	: 11.0	+	rack travel mm Rated speed rpm	: 4.00 : 1320
cm3/1000 strokes Check tolerance	: +- 2.0	‡	rack travel mm	: 9.90
cm3/1000s. Spreed Tolerance	: + 4.5	1	Rated speed rpm Tolerance 1/min	: 1248 : + 8
cm3/1000 strokes Check tolerance	: 3.5	1	ASSEMBLY GOVERNOR	SETTING
cm3/1000s.	: 5.5	<u>†</u>	Rated speed rpm rack travel mm	: 1240 : 9.90
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	+++++++++++++++++++++++++++++++++++++++	Rated speed rpm Tolerance 1/min rack travel mm	: 1289 : + 4 : 4.00
		7	Rated speed rpm	: 1241
GUIDE SLEEVE POSI	TION	‡	rack travel mm	: 9.90
Rated speed rpm	: 800	‡	Rated speed rpm Tolerance 1/min	: 1290 : +- 4
Rack travel in mm Tolerance mm	: 0.65 : + 0.35	+	rack travel mm	: 4.00
governor spring pre-tension		† †	Rated speed rpm rack travel mm	: 1242 : 9.90
click setting x	: 5.75	+	Rated speed rpm Tolerance 1/min	: 1291 : + 4
FULL LOAD DELIVER	Y AT FULL LOAD STOP	‡	rack travel mm	: 4.00
Rated speed rpm Aneroid pressure	: 1200	‡	Rated speed rpm rack travel mm	: 1243 : 9.90
hPa Del. quantity	: 750	<u>†</u>	Rated speed rpm Tolerance 1/min	: 1292 : + 4
cm3/1000 strokes Tolerance	: 84.0	$\frac{1}{1}$	rack travel mm	4.00
cm3/1000 strokes Check tolerance	: ← 1.0		Rated speed rpm rack travel mm	: 1244 : 9.90
cm3/1000s. Spreed	: ← 3.0	+	Rated speed rpm	: 1293
Tolerance	. 7.5	+	Tolerance 1/min	: +- 4
cm3/1000 strokes Check tolerance		+	rack travel mm	: 4.00
cm3/1000s.	: 6.0		Rated speed rpm rack travel mm	: 1245 : 9.90
CONTROL LEVER			Rated speed rpm Tolerance 1/min	: 1294 : + 4

rack travel mm	: 4.00	rack travel mm : 1.15 Tolerance mm : + 0.10
LOW IDLE		- † †
Setting point w/	out bumper spring	EUR DEL TUEDY CHADACTERICTICS
Rated speed rpm	: 350	FUEL DELIVERY CHARACTERISTICS
rack travel mm		Aneroid pressure
		hPa : 750 Rated speed rpm : 600
Testing:		+ Del. quantity
rack travel mm		- cm3/1000 strokes : 79.5
Rated speed rpm		+ Tolerance
Tolerance 1/min	: +- 40	+ cm3/1000 strokes : +- 1.5 + Check tolerance
Rated speed rpm	: 100	+ cm3/1000s. : +- 4.0
natica opeca i piii		Spreed
CRT mm min.	: > 19.00	+ Tolerance
		cm3/1000 strokes : 5.0
		- + Check tolerance
TORQUE CONTROL		cm3/1000s. : 7.0
Rated speed rpm	: 1200	Aneroid pressure
rack travel mm	: 10.95	+ hPa : -
Tolerance mm	: +- 0.05	Rated speed rpm : 500 Del. quantity
Rated speed rpm	: 600	- cm3/1000 strokes : 46.0
rack travel mm		+ Tolerance
Tolerance mm		+ cm3/1000 strokes : +- 1.0
		+ Check tolerance
Rated speed rpm	: 1000	+ cm3/1000s. : +- 3.0
rack travel mm Tolerance mm	: 11.10	†
Tolerance mm	: +- 0.10	‡
ANEROID/ALTITUDE		STARTING FUEL DELIVERY
COMPENSATOR TEST		+
		+ Rated speed rpm : 100
CETTANC		Del. quantity
SETTING		+ cm3/1000 strokes : 88.0 + Tolerance
Rated speed rpm	: 500	+ cm3/1000 strokes : +- 5.0
Pressure hPa	: 750	+ Check tolerance
rack travel mm	: 11.75	+ cm3/1000s. : + 8.0
Tolerance mm	: + 0.10	+
MEASUREMENT		1
HEADOREHEN1		
Pressure hPa	: -	+ LOW IDLE
Rated speed rpm	: 500	+
Tolerance mm	: +- 0.05	Rated speed rpm : 350
		+ rack travel mm : 6.15
Rated speed rpm	: 500	+ Tolerance mm : + 0.35
Danas 5:D		+ Del. quantity
Pressure hPa	: 400 : 1.75	+ cm3/1000 strokes : 11.0 + Tolerance
rack travel mm Toierance mm	: + 0.10	+ cm3/1000 strokes : + 2.0
		+ Check tolerance
Pressure hPa	: 300	+ cm3/1000s. : +- 4.5

3.5

Spreed
Tolerance
cm3/1000 strokes :
Check tolerance
cm3/1000s. :

5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 14.07.95

Test oil

: TSO 4113

Combination No. : 0 403 476 136

Injection pump

Pump designation : PES6MW100/320RS1237

EP type number : 0 413 406 233

Governor

Governer design. : RSV300...1100MW1A353

: 0 420 085 223 Governer no.

Cust. part No.

Customer-spec. information

Customer

: VME

Motor

: TD61GD

Power KW

: 92.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

40

Tolerance °C

: +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

: +- 1.5

Test lines : 1 630 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : +- 1.0

Prestroke mm

3.05

Tolerance mm

: +- 0.05

Check

tolerance mm

: + 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

Firing order

: 1-5-3-6-2-

Phasing

: 0-60-120-180-240

: -300

Tolerance

Check

tolerance *NW

: + 0.75

: +- 0.50

BASIC SETTING

Rated speed rpm :

1100

Rack travel in mm :

9.90

Tolerance mm

: +- 0.05

Del. quantity

cm3/1000 strokes :

106.0

Tolerance

cm3/1000 strokes : + 1.0

• +--

Check tolerance

cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 3.5

3.0

1	
Check tolerance	control lever
cm3/1000s. : 6.0	position degree : 114.0
+	tolerance degree : + 4.0
Rated speed rpm : 315	-
+	RATED SPEED
Rack travel in mm: 6.50 + Tolerance mm: + 0.20 +	and Annual and 9.00
Tolerance mm : +- 0.20 +- Del. quantity +-	rack travel mm : 8.90 Rated speed rpm : 1140
cm3/1000 strokes : 6.0	Tolerance 1/min : +- 5
Tolerance	Total and Triming
cm3/1000 strokes : + 2.0 +	rack travel mm : 4.00
Check tolerance +	Rated speed rpm : 1180
cm3/1000s. : + 4.5 +	Tolerance 1/min : + 15
Spreed	7.00 to
Tolerance + cm3/1000 strokes : 3.5 +	rack travel mm : 1.00 Tolerance mm : +- 0.70
Check tolerance	Rated speed rpm : 1250
cm3/1000s. : 5.5	Nacca Speca i più i i i i i i i i i i i i i i i i i
+	
+	
(B) SETTING OF INJECTION PUMP	LOW IDLE
WITH GOVERNOR +	
Ţ	control lever
	position degree : 82.0
GUIDE SLEEVE POSITION	tolerance degree : + 4.0
+	-
Rated speed rpm : 800	Testing:
Rack travel in mm: 0.65	Rated speed rpm : 315
Tolerance mm : + 0.35	rack travel mm : 6.50
+	Tolerance mm : + 0.10
governor spring +	
pre-tension +	Rated speed rpm : 100
click setting x : 4.00	CRT mm min. : > 19.00
<u> </u>	CRT mm min. : > 19.00
FULL LOAD DELIVERY AT FULL LOAD STOP	
+	TORQUE CONTROL
Rated speed rpm : 1100	
Aneroid pressure	Rated speed rpm : 1100
hPa : -	rack travel mm : 9.90
Del. quantity + cm3/1000 strokes : 106.0 +	Tolerance mm : $+$ 0.05
Tolerance	Rated speed rpm : 500
cm3/1000 strokes : + 1.0	rack travel mm : 11.30
Check tolerance	Tolerance mm : + 0.10
cm3/1000s. : + 3.0	
Spreed	Rated speed rpm : 660
Tolerance 7.5	rack travel mm : 10.20
cm3/1000 strokes : 3.5	Tolerance mm : \leftarrow 0.10
Check tolerance + cm3/1000s. : 6.0 +	
T	
 	
CONTROL LEVER	FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 107.0 Tolerance 1.5 cm3/1000 strokes : +-Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes 5.5 Check tolerance 7.0 cm3/1000s. **BREAKAWAY** Rack travel in mm: 8.90 1140 Rated speed rpm Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 20.00 Tolerance mm 1.00 Del. quantity cm3/1000 strokes : 90.0 Tolerance 7.0 cm3/1000 strokes Check tolerance cm3/1000s. : + - 10.0LOW IDLE Rated speed rpm 315 6.50 rack travel mm 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 6.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance 3.5 cm3/1000 strokes Check tolerance cm3/1000s. 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.04.95 Test oil : ISO 4113

Combination No. : 0 403 476 138

Injection pump

Pump designation : PES6MW100/720RS1130

: -3

EP type number : 0 413 406 235

Governor

Governer design. : RSV350...1300MW0A318

Governer no. : 0 420 085 052

Cust. part No. : 0250748802

Customer-spec. information Customer : MB-NFZ Motor : OM 366 A Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance "NW : + 0.75

BASIC SETTING

Rated speed rpm : 1280

Rack travel in mm : 10.10 Tolerance mm : + 0.10

Del. quantity cm3/1000 strokes : 77.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s. : 6.0

Rated speed rpm : 350

Rack travel in mm: 6.00

Tolerance mm : \leftarrow 0.20

Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5	rack travel mm : 4.00 Rated speed rpm : 1380 Tolerance 1/min : + 15 rack travel mm : 1.00 Tolerance mm : + 0.70 Rated speed rpm : 1500 LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 78.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION	Testing:
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	Rated speed rpm : 350 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 450 Tolerance 1/min : + 30
click setting x : 6.25	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. :> 19.00
Rated speed rpm : 1280 Aneroid pressure hPa : -	TORQUE CONTROL
Del. quantity cm3/1000 strokes : 77.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0	Rated speed rpm : 1280 rack travel mm : 10.10 Tolerance mm : + 0.10 Rated speed rpm : 750 rack travel mm : 10.50 Tolerance mm : + 0.10 Rated speed rpm : 825 rack travel mm : 10.25 Tolerance mm : + 0.10
cm3/1000 strokes : 77.0 Tolerance + cm3/1000 strokes : + 1.0 + Check tolerance + cm3/1000s. : + 3.0 + Spreed + Tolerance + cm3/1000 strokes : 3.5 + Check tolerance +	rack travel mm : 10.10 Tolerance mm : + 0.10 Rated speed rpm : 750 rack travel mm : 10.50 Tolerance mm : +- 0.10 Rated speed rpm : 825 rack travel mm : 10.25

Check tolerance cm3/1000s. 4.0 Spreed Tolerance 5.0 cm3/1000 strokes : Check tolerance 7.0 cm3/1000s. **BREAKAWAY** 9.10 Rack travel in mm : Rated speed rpm : 1325 Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 83.0 Tolerance cm3/1000 strokes : +-5.0 Check tolerance cm3/1000s. 8.0 LOW IDLE Rated speed rpm 350 rack travel mm 6.00 : +- 0.20 Tolerance mm Del. quantity 11.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. 5.5 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.05.95 Test oil : ISO 4113

Combination No. : 0 403 476 141

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design. : RSV350...1300MW0A364

Governer no. : 0 420 085 247

Cust. part No. : 0260742002

Customer—spec. information Customer : MB—NFZ Motor : CM 366 LA Power KW : 127.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75Tolerance mm : $\leftarrow 0.05$

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.65
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 85.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

		+		
Check tolerance cm3/1000s.	: 6.0	‡	control lever position degree	: 113.0
Rated speed rpm	: 350	‡	tolerance degree	: +- 4.0
		+	RATED SPEED	
Rack travel in mm Tolerance mm	: 8.40 : +- 0.35	İ	rack travel mm	: 1.00
Del. quantity	0.55	1	Tolerance mm	: +- 0.70
cm3/1000 strokes	: 11.0	1	Rated speed rpm	
Tolerance		+		
	: +- 2.0	+	rack travel mm	: 4.00
Check tolerance		+	Rated speed rpm	: 1445
	: ← 4.5	†		. 40.70
Spreed Tolerance		†	rack travel mm	: 10.60 : 1343
cm3/1000 strokes	: 3.5	I	Rated speed rpm Tolerance 1/min	: +- 8
Check tolerance	. 3.3	1	rocci dilec iriniti	
cm3/1000s.	: 5.5	1	ASSEMBLY GOVERNOR	SETTING
		1	Rated speed rpm	: 1340
(B) SETTING OF INJI	ECTION PUMP	+	rack travel mm	
WITH GOVERNOR		+		
		+	Rated speed rpm	
		†	Tolerance 1/min	
GUIDE SLEEVE POSIT	TON	1	rack travel mm	: 4.00
GOIDE SLEEVE POSTI.	1014	I	Rated speed rpm	: 1341
Rated speed rpm	: 800	+	rack travel mm	: 10.60
Rack travel in mm	: 0.65	I	Rated speed rpm	: 1402
Tolerance mm	: +- 0.35	1	Tolerance 1/min	
		+	rack travel mm	: 4.00
governor spring		+		
pre-tension		+	Rated speed rpm	
click setting x	: 4.20	†	rack travel mm	: 10.60
		I	Rated speed rpm	: 1403
FULL LOAD DELIVERY	AT FULL LOAD STOP	1	Tolerance 1/min	
		+	rack travel mm	: 4.00
Rated speed rpm	: 1300	+		
Aneroid pressure		†	Rated speed rpm	
hPa :	-	†	rack travel mm	: 10.60
Del. quantity cm3/1000 strokes :	. 85.0	Ī	Rated speed rpm	: 1404
Tolerance	, 65.6	I	Tolerance 1/min	: +- 4
cm3/1000 strokes :	: +- 1.0	1	rack travel mm	4.00
Check tolerance		+		
cm3/1000s.	: +- 3.0	+	Rated speed rpm	: 1344
Spreed		+	rack travel mm	: 10.60
Tolerance	7 5	†	Datad anada	. 1/05
cm3/1000 strokes : Check tolerance	3.3	Ī	Rated speed rpm Tolerance 1/min	: 1405 : +- 4
cm3/1000s. :	6.0	I	rack travel mm	4.00
		1		
		+	Rated speed rpm	: 1345 : 10.60
		+	rack travel mm	: 10.60
CONTROL LEVER		+	Dakad amaad	4/0/
		†	Rated speed rpm Tolerance 1/min	: 1406 : +- 4
		T	forerance (/min	: +- 4

rack travel mm	: 4.00
LOW IDLE	en en en en en en en en en en en en en e
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 8.40 : + 0.35
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 470 : + 30
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm	111.70
TOLET ELICE HEI	: +- 0.10
FUEL DELIVERY CHA	RACTERISTICS
FUEL DELIVERY CHA Aneroid pressure hPa	RACTERISTICS
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	RACTERISTICS: -
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	RACTERISTICS : - : 900 : 78.0
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	RACTERISTICS : - : 900 : 78.0
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: - : 900 : 78.0 : + 1.5
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: - : 900 : 78.0 : + 1.5 : + 4.0
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: : 900 : 78.0 : + 1.5 : + 4.0 : 5.0 : 7.0
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: : 900 : 78.0 : + 1.5 : + 4.0 : 5.0 : 7.0

Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 8.0

LOW IDLE Rated speed rpm : 350 8.40 rack travel mm : : + 0.35 Tolerance mm Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance

: 5.5

End of test specification sheet

cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 21.06.95 : ISO 4113

Combination No. : 0 403 476 142

Injection pump

Pump designation : PES6MW100/720RS1239

EP type number : 0 413 406 238

Governor

Governer design. : RSV350...1200MW0A372

Governer no.

: 0 420 085 255

Cust. part No. : 0250748902

Customer-spec. information Customer : MB-NFZ Motor : CM366LA Power KW : 90.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 3.65 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

: + 3.0

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 12.30 : + 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 67.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000S.

Spreed

Tolerance

cm3/1000 strokes : 3.5

	, I
Check tolerance cm3/1000s. : 6.0	control lever position degree : 119.0
Rated speed rpm : 350	tolerance degree : + 4.0
	RATED SPEED
Rack travel in mm: 7.50	+
Tolerance mm : + 0.25	+ rack travel mm : 1.00 + Tolerance mm : +- 0.70
Del. quantity cm3/1000 strokes : 12.0	+ Tolerance mm : +- 0.70 + Rated speed rpm : 1450
Tolerance	- Nateu speed (piii : 1456
cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1400
cm3/1000s. : + 4.5	11 70
Spreed Tolerance	rack travel mm : 11.30 Rated speed rpm : 1250
cm3/1000 strokes : 3.5	+ Tolerance 1/min : + 8
Check tolerance	1000, 0,100
cm3/1006s. : 5.5	ASSEMBLY GOVERNOR SETTING
	Rated speed rpm : 1240
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 11.30
The state of the s	Rated speed rpm : 1370
	+ Tolerance 1/min : + 4
CHARLE DACTITAN	rack travel mm : 4.00
GUIDE SLEEVE POSITION	Rated speed rpm : 1241
Rated speed rpm : 800	rack travel mm : 11.30
Rack travel in mm : 0.65	Rated speed rpm : 1371
Tolerance mm : +- 0.35	+ Tolerance 1/min : + 4
	+ rack travel mm : 4.00
governor_spring	+
pre-tension	+ Rated speed rpm : 1242 + rack travel mm : 11.30
click setting x : 4.00	rack travel mm : 11.30
	Rated speed rpm : 1372
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance 1/min : +- 4
	† rack travel mm : 4.00
Rated speed rpm : 1200	+ Rated speed rpm : 1243
Aneroid pressure hPa : -	+ Rated speed rpm : 1243 + rack travel mm : 11.30
Del. quantity	+ Tuck trayer may
cm3/1000 strokes : 67.0	+ Rated speed rpm : 1373
Tolerance	+ Tolerance 1/min : + 4
cm3/1000 strokes : + 1.0	rack travel mm : 4.00
Check tolerance cm3/1000s. : + 3.0	+ Rated speed rpm : 1248
Spreed 5.0	+ Rated speed rpm : 1248 + rack travel mm : 11.30
Tolerance	
cm3/1000 strokes : 3.5	Rated speed rpm : 1378
Check tolerance	Tolerance 1/min : + 4
cm3/1000s. : 6.0	rack travel mm : 4.00
	Rated speed rpm : 1249
	+ rack travel mm : 11.30
CONTROL LEVER	1
	Rated speed rpm : 1379
	+ Tolerance 1/min : +- 4

rack travel mm : 4.00 LOW IDLE Testing: Rated speed rpm 350 rack travel mm 7.50 Tolerance mm : + 0.25 Rated speed rpm 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm 1200 rack travel mm 12.30 Tolerance mm : +- 0.05 600 Rated speed rpm rack travel mm 12.30 Tolerance mm : + 0.10 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa Rated speed rpm 600 Del. quantity cm3/1000 strokes : 45.0 Tolerance cm3/1000 strokes : +-1.5 Check tolerance cm3/1000s. 4.0 Spreed Tolerance 5.0 cm3/1000 strokes : Check tolerance cm3/1000S. 7.0 STARTING FUEL DELIVERY Rated speed rpm 100 Del. quantity cm3/1000 strokes : 83.0

LOW IDLE

Rated speed rpm	:	350
rack travel mm	:	7.50
Tolerance mm	: +-	0.25
Del. quantity		
cm3/1000 strokes	:	12.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

End of test specification sheet

Tolerance

cm3/1000 strokes : +-

Check tolerance cm3/1000s.

5.0

8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 21.06.95 Test oil : ISO 4113

Combination No. : 0 403 476 143

Injection pump

Pump designation : PES6MW100/720RS1239

EP type number : 0 413 406 238

Governor

Governer design. : RSV350...1200MW0A373

Governer no. : 0 420 085 256

Cust. part No. : 0260746002

Customer—spec. information
Customer : MB-NFZ
Motor : OM366LA
Power KW : 62.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0
Tolerance bar : + 1.0

Prestroke mm : 3.65Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 10.30 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 47.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

		1			
Check tolerance		contro	l lever		
cm3/1000s.	: 6.0		on degree	:	119.0
Rated speed rpm	: 350	RATED :	SPEED		
Rack travel in mm	: 7.50	Frack to	ravel mm	:	1.00
Tolerance mm	: +- 0.25		nce mm	: +-	0.70
Del. quantity		+ Rated :	speed rpm	:	1450
cm3/1000 strokes	: 12.0	†			
Tolerance			ravel mm	:	4.00
cm3/1000 strokes	: ← 2.0	+ Rated	speed rpm	:	1370
Check tolerance cm3/1000s.	: +- 4.5	T mark to	ravel mm	_	9.30
Spreed	. +- 4.5		speed rpm	:	1250
Tolerance			nce 1/min	: +-	8
cm3/1000 strokes	: 3.5	1	100 17111111	•	Ū
Check tolerance		+ ASSEMBI	LY GOVERNOR	SETT	ING
cm3/1000s.	: 5.5	+			
		+ Rated	speed rpm	:	1240
		+ rack ti	ravel mm	:	9.30
(B) SETTING OF INJ	IECTION PUMP	+			
WITH GOVERNOR			speed rpm	:	1340
			nce 1/min	: +	4
		+ rack ti	ravel mm	:	4.00
GUIDE SLEEVE POSIT	TON	Patada	anaod nam		1241
GOIDE SPEENE LOSI	TOIA		speed rpm ravel mm	:	9.30
Rated speed rpm	: 800	I rack tr	aver mm	•	7.30
Naced speed i piii	. 000	Rated	speed rpm	:	1341
Rack travel in mm	: 0.65		nce 1/min	: +-	_
Tolerance mm	: +- 0.35		ravel mm	:	4.00
		+			
governor spring			speed rpm	:	1242
pre-tension		+ rack tr	ravel mm	:	9.30
click setting x	: 4.00	+			
		•	speed rpm	:	1342
F	AT 500 LOAD OTAD		nce 1/min	: +-	4 00
FULL FOAD DELIVERY	AT FULL LOAD STOP	† rack tr	ravel mm	:	4.00
Rated speed rpm	: 1200	I Pated s	speed rpm	•	1243
Aneroid pressure	. 1200		ravel mm	:	9.30
hPa	: -	1 400 61	dice and	•	7.50
Del. quantity		Rated s	speed rpm	:	1343
cm3/1000 strokes	: 47.0		ice 1/min	: +-	4
Tolerance		+ rack tr	ravet mm	:	4.00
cm3/1000 strokes	: +- 1.0	+			
Check tolerance			speed rpm	:	1248
cm3/1000s.	: +- 3.0	+ rack tr	avel mm	:	9.30
Spreed		†		_	47/0
Tolerance	. 75		peed rpm	:	1348
	: 3.5		ace 1/min Pavel mm	: +-	4 4.00
Check tolerance cm3/1000s.	: 6.0	I rack tr	aver imi	•	4.00
UID/ IOOUS.	. 0.0	T Rated s	peed rpm	:	1249
			avel mm	:	9.30
		+		-	
CONTROL LEVER		+ Rated s	peed rpm	:	1349
		+ Toleran	ce 1/min	: +-	4
		+ rack tr	avel mm	:	4.00

LOW IDLE

Testing:

350 Rated speed rpm rack travel mm 7.50 Tolerance mm 0.25

Rated speed rpm 100

CRT mm min. : > 19.00

TORQUE CONTROL

1200 Rated speed rpm rack travel mm 10.30 Tolerance mm : +- 0.05

Rated speed rpm 600 10.30 rack travel mm Tolerance mm : + - 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

Rated speed rpm 600

Del. quantity

cm3/1000 strokes : 28.0

Tolerance

cm3/1000 strokes 1.5

Check tolerance

cm3/1000s. 4.0

Spreed

Tolerance

cm3/1000 strokes : 5.0

Check tolerance

cm3/1000s.7.0

STARTING FUEL DELIVERY

100 Rated speed rpm

Del. quantity

cm3/1000 strokes : 83.0

Tolerance

cm3/1000 strokes : +-5.0

Check tolerance

cm3/1000s. 8.0

LOW IDLE

Rated speed rpm	:	350
rack travel mm	:	7.50
Tolerance mm	: +-	0.25
Del. quantity		
cm3/1000 strokes	:	12.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05.04.95 Test oil : ISO 4113

Combination No. : 0 402 734 801

Injection pump

Pump designation : PES4P12OA12ORS7313 EP type number : 0 412 724 801

Governor

Governer design. : RQV400...1250PA1113K

Governer no. : 0 421 815 376

Cust. part No. : 3926603

Customer—spec. information Customer : CDC Motor : 4BTA-A Power KW : 97.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

inside diameter: 3.0
x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Tolerance bar : + 0.10

Prestroke mm : + 0.23

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.01.95 Test oil : ISO 4113

Combination No. : 0 401 840 776

Injection pump

Pump designation : PE12P12OA520/4LS3854

: -1

EP type number : 0 411 820 730

Governor

Governer design. : RQ900PA1196 Governer no. : 0 421 801 753

Cust. part No.

Customer—spec. information Customer : DAEWOO Motor : D2842LE Power KW : 260.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

_

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.25
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 12-1-5-9-8

: - 3- 4- 11- 10 : - 2- 6- 7

Phasing : 0-45-60-105-120 : -165-180-225-240

: -285-300-345

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.50

Start of delivery mark

Barrel no. : 12

BASIC SETTING

Rated speed rpm : 850

Rack travel in mm : 12.50
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 230.0

Tolerance

cm3/1000 strokes : + 1.0

K24

Check tolerance cm3/1000s. : +- 4.0	Rated speed rpm : 900 rack travel mm : 11.50
Spreed Tolerance cm3/1000 strokes : 5.0	Rated speed rpm : 932 Tolerance 1/min : + 4 rack travel mm : 4.00
Check tolerance cm3/1000s. 9.0	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1050
Rated speed rpm : 300	Rated speed rpm : 901
Rack travel in mm : 4.20 Tolerance mm : +- 0.20	rack travel mm : 11.50
Del. quantity cm3/1000 strokes : 20.0 Tolerance	+ Rated speed rpm : 933 + Tolerance 1/min : + 4 + rack travel mm : 4.00
cm3/1000 strokes : +- 3.0 Check tolerance	rack travel mm : 0.50
cm3/1000s. : +- 6.0 Spreed	Tolerance mm : + 0.50 Rated speed rpm : 1050
Tolerance cm3/1000 strokes : 8.0 Check tolerance	Rated speed rpm : 902 rack travel mm : 11.50
cm3/1000s. : 12.0	Rated speed rpm : 934
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance 1/min : + 4 + rack travel mm : 4.00
	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1050
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rom : 903
Rated speed rpm : 850 Aneroid pressure	rack travel mm : 11.50
hPa : - Del. quantity	Rated speed rpm : 935 Tolerance 1/min : + 4
cm3/1000 strokes : 230.0 Tolerance	rack travel mm : 4.00
<pre>cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 4.0</pre>	+ rack travel mm : 0.50 + Tolerance mm : + 0.50 + Rated speed rpm : 1050
Spreed Tolerance cm3/1000 strokes : 5.0	Rated speed rpm : 904 rack travel mm : 11.50
Check tolerance cm3/1000s. : 9.0	Rated speed rpm : 936 Tolerance 1/min : + 4
	rack travel mm : 4.00
CONTROL LEVER control lever	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1050
position degree : 90.0 tolerance degree : + 4.0	Rated speed rpm : 905 rack travel mm : 11.50
ASSEMBLY GOVERNOR SETTING	Rated speed rpm : 937 Tolerance 1/min : + 4

rack travel mm : 4.00

rack travel mm : 0.50
Tolerance mm : + 0.50
Rated speed rpm : 1050

TORQUE CONTROL

Rated speed rpm : 850 rack travel mm : 12.50 Tolerance mm : + 0.05

LOW IDLE

Rated speed rpm 300 4.20 rack travel mm Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 20.0 Tolerance 3.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 04.09.95 Edition : ISO 4113 Test oil

Combination No. : 0 401 846 882

Injection pump

Pump designation : PE6P120A320RS3206-1 EP type number : 0 411 826 775

Governor

Governer design. : RQ750PA783-1 Governer no. : 0 421 801 432

Cust. part No. : 863232 P04 V. 02/95

Customer-spec. information

Customer : VOLVO-PENTA : TAMD 122 A Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Vibration damper

(RoBo diaphragm): 4.2

Test oil inlet

temp. °C Tolerance °C

: 1 457 413 010 Overflow valve

1.5 Inlet press. bar :

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

208.5 bar 1.5 Tolerance bar

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 : + 0.30Tolerance

Check

: + 0.75tolerance °NW

Start of delivery mark

1 Barrel no. :

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 13.80 : +- 0.05Tolerance mm

Del. quantity

cm3/1000 strokes :

345.0

Tolerance

cm3/1000 strokes : \div 1.0

Check tolerance

: +cm3/1000s.4.0

Spreed

Tolerance

cm3/1000 strokes :

5.0

Check tolerance

cm3/1000s.

9.0

	ı	Charle talanana
Rated speed rpm	. 300	Check tolerance cm3/1000s. : +- 4.0
kateu specu i piii	. 500	Spreed . +- 4.8
Rack travel in mm	: 5.00	Tolerance
	: + 0.30 }	cm3/1000 strokes : 5.0
Del. quantity	+	Check tolerance
cm3/1000 strokes	: 20.0	cm3/1000s. : 9.0
Tolerance cm3/1000 strokes		
Check tolerance	· + 3.0	
	: + 6.0	CONTROL LEVER
Spreed	1	
Tolerance	+	control lever
cm3/1000 strokes	: 5.0	position degree : 88.0
Check tolerance	: 8.0	tolerance degree : +- 4.0
cm3/1000s.	· •	RATED SPEED
	I	NATEU SPEED
(B) SETTING OF INJ	ECTION PUMP	rack travel mm : 12.80
WITH GOVERNOR	+	Rated speed rpm : 751
	+	Tolerance 1/min : + 3
		4.00
GUIDE SLEEVE TRAVE	L †	rack travel mm : 4.00
Rated speed rpm	: 757	Rated speed rpm : 791 Tolerance 1/min : + 8
guide sleeve	· '3'	Toterance Trimm . The o
travel mm	: 4.06	rack travel mm : 0.50
	: + 0.25	Tolerance mm : +- 0.50
	+	Rated speed rpm : 850
	: 510 +	
guide sleeve	- 0.77	ASSEMBLY GOVERNOR SETTING
travel mm	: -8.33 : + 0.25	Rated speed rpm : 748
Tolerance mm	I	rack travel mm : 12.80
Rated speed rpm	: 860	THE CHAPTER IN TELES
guide sleeve	+	Rated speed rpm : 789
travel mm	: 16.96	Tolerance 1/min : + 5
Tolerance mm	: + 0.25 +	rack travel mm : 4.00
6 . ()		0.50
Rated speed rpm	: 814	rack travel mm : 0.50 Tolerance mm : + 0.50
guide sleeve travel mm	: 10.00	Rated speed rpm : 850
	: + 0.25	Nation Speed (pm 4. 050
	+	Rated speed rpm : 749
Rated speed rpm	: 870	rack travel mm : 12.80
guide sleeve	†	700
travel mm	: 11.50 +	Rated speed rpm : 790
Tolerance mm	: ← 0.50 +	Tolerance 1/min : +- 5 rack travel mm : 4.00
	I	rack travet imm . 4.00
FULL LOAD DELIVERY	AT FULL LOAD STOP	rack travel mm : 0.50
	+	Tolerance mm : +- 0.50
	: 700	Rated speed rpm : 850
Aneroid pressure	+	
hPa :	: - +	Rated speed rpm : 750
Del. quantity	. 7/5 0	rack travel mm : 12.80
cm3/1000 strokes	: 345.0	Rated speed rpm : 791
Tolerance cm3/1000 strokes :	: 1.0	Tolerance 1/min : +- 5
SHOT TOOL SELENCES		rack travel mm : 4.00
	ľ	

rack travel mm	: 0.50
Tolerance mm	: ← 0.50
Rated speed rpm	: 850
Rated speed rpm	: 751
rack travel mm	: 12.80
Rated speed rpm	: 792
Tolerance 1/min	: +- 5
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: ← 0.50
Rated speed rpm	: 850
Rated speed rpm	: 752
rack travel mm	: 12.80
Rated speed rpm	: 793
Tolerance 1/min	: + 5
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: + 0.50
Rated speed rpm	: 850
Rated speed rpm	: 753
rack travel mm	: 12.80
Rated speed rpm	: 794
Tolerance 1/min	: +- 5
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: +- 0.50
Rated speed rpm	: 850
TORQUE CONTROL	
Rated speed rpm	: 700
rack travel mm	: 13.80
Tolerance mm	: ← 0.05

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 300 : 5.00 : +- 0.30
cm3/1000 strokes	: 20.0
Tolerance	. 23.0
cm3/1000 strokes	: +- 3.0
Check tolerance cm3/1000s. Spreed	: ← 6.0
Tolerance	
cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 8.0

End of test specification sheet

Rack travel in mm : 12.80
Rated speed rpm : 751
Tolerance 1/min : + 3

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.05.95 Edition : ISO 4113 Test oil

Combination No. : 0 402 646 621

Injection pump

Pump designation : PE6P120A720RS7264 EP type number : 0 412 626 874

Governor

Governer design. : RQ900PA758-16 Governer no. : 0 421 801 685

Cust. part No. : 1337553

Customer-spec. information : SCANIA Customer : D 11 Motor

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Vibration damper

(RoBo diaphragm) : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Tolerance L/h: + 10.0

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

: 251.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.05 : +- 0.05 Tolerance mm

Check

tolerance mm : **←** 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 4

: 0-60-120-180-240 Phasing

: -300 : + 0.30Tolerance

Check

tolerance °NW : + 0.50

BASIC SETTING

Rack travel in mm : 5.10 Tolerance mm : +- 0.10

Del. quantity

cm3/1000 strokes : 20.0

Tolerance

cm3/1000 strokes : \leftarrow 4.0

Check tolerance

cm3/1000s. 6.0

0		† tolerance degree	: +-	4.0
Spreed		control lever		
Tolerance cm3/1000 strokes	: 5.0	position degree tolerance degree	: : +-	87.0 4.0
Check tolerance cm3/1000s.	: 9.0	ASSEMBLY GOVERNOR	CETT.	TNC
(III) 10003.		T ASSEMBLY GOVERNOR	SEII.	
Rated speed rpm	: 850	Rated speed rpm rack travel mm	:	900 13.10
Rack travel in mm		T Rated speed rpm	:	954
Tolerance mm	: ← 0.05	+ Tolerance 1/min	: +-	4
Del. quantity		† rack travel mm	:	4.00
cm3/1000 strokes	: 264.0	rack travel mm	:	0.50
- 1		+ Tolerance mm	: +-	0.50
Tolerance cm3/1000 strokes	: + 1.0	Rated speed rpm	:	1000
CHOT TOOL SET ORES		Rated speed rpm	:	901
Check tolerance		+ rack travel mm	:	13.10
cm3/1000s.	: +- 4.0	Rated speed rpm		955
Spreed		Tolerance 1/min	: +	4
Tolerance		rack travel mm	:	4.00
cm3/1000 strokes	: 8.0	+	_	0 50
Check tolerance		† rack travel mm † Tolerance mm	: +-	0.50
cm3/1000s.	: 12.0	+ Rated speed rpm	:	1000
		+		
(B) SETTING OF IN	IECTION DUMP	+ Rated speed rpm + rack travel mm	:	902 13.10
WITH GOVERNOR	SECTION FUMP	T FACK CLAVEL MAIN	•	13.10
		+ Rated speed rpm	:	956
		+ Tolerance 1/min	: +-	4 00
FULL LOAD DELIVER	Y AT FULL LOAD STOP	rack travel mm	:	4.00
LOFF FOUND DEFTACK	, Al loca cond blot	rack travel mm	:	0.50
Rated speed rpm	: 850	+ Tolerance mm	: +-	0.50
Aneroid pressure	4500	+ Rated speed rpm	:	1000
hPa Del. quantity	: 1500	Rated speed rpm	:	903
cm3/1000 strokes	: 264.0	rack travel mm	:	13.10
Tolerance		† <u> </u>		~~~
cm3/1000 strokes Check tolerance	: + 1.0	+ Rated speed rpm + Tolerance 1/min	:	957 4
cm3/1000s.	: +- 4.0	+ rack travel mm	: '-	4.00
Spreed		+	•	
Tolerance		rack travel mm	:	0.50
cm3/1000 strokes	: 8.0	Tolerance mm	: +-	0.50 1000
Check tolerance cm3/1000s.	: 12.0	+ Rated speed rpm	•	ruuu
	· · · · · · · ·	Rated speed rpm	:	904
		rack travel mm	:	13.10
CONTROL LEVER		Rated speed rpm	•	958
CONTINUE DEVEN		+ Tolerance 1/min	: +-	4
control lever		+ rack travel mm	:	4.00
position degree	: 26.0	+		

rack travel mm	: 0.50
Tolerance mm	: + 0.50
Rated speed rpm	: 1000
Rated speed rpm	: 905
rack travel mm	: 13.10
Rated speed rom	: 959
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: + 0.50
Rated speed rpm	: 1000

TORQUE CONTROL

Rated speed rpm : 850 rack travel mm : 14.15 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 14.15
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 11.00
Tolerance mm : + 0.20

Rated speed rpm : 500

Pressure hPa : 210 rack travel mm : 11.90 Tolerance mm : + 0.20

Pressure hPa : 440 rack travel mm : 13.45 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 177.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 10.40 Tolerance mm : + 0.20 Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance cm3/1000s. : +- 14.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.05.95 Edition : ISO 4113 Test oil

Combination No. : 0 402 646 622

Injection pump

Pump designation : PE6P120A720RS7264 EP type number : 0 412 626 874

Governor

Governer design. : RQ1050PA758-17 : 0 421 801 686 Governer no.

Cust. part No. : 1337554

Customer-spec. information : SCANIA Customer Motor : D 11

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Vibration damper

(RoBo diaphragm) : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

2.5 Inlet press. bar : Tolerance bar

Tolerance l/h : + 10.0

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

251.5 : +- 1.5 Tolerance bar

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 5.05 : + 0.05Tolerance mm

Check

tolerance mm : + - 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : + 0.50

BASIC SETTING

5.10 Rack travel in mm: Tolerance mm : +- 0.10

Del. quantity cm3/1000 strokes : 20.0

Tolerance

cm3/1000 strokes : +-4.0

Check tolerance cm3/1000s. : +-6.0

On a seed	+ guide steeve
Spreed	+ travel mm : 11.50
Tolerance	Tolerance mm : +- 0.50
cm3/1000 strokes : 5.0	
CIID/ TOUD SETORES . J.D	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	TOLE EOND DECIVERY AT TOLE EOND OTO
cm3/1000s. : 9.0	Rated speed rpm : 850
	+ Aneroid pressure
Rated speed rpm : 850	+ hPa : 1500
	+ Del. quantity
	+ cm3/1000 strokes : 264.0
Rack travel in mm : 14.15	+ Tolerance
Tolerance mm : + 0.05	+ cm3/1000 strokes : + 1.0
	+ Check tolerance
Del. quantity	+ cm3/1000s. : + 4.0
cm3/1000 strokes : 264.0	Spreed
Talanasa	+ Tolerance
Tolerance cm3/1000 strokes : +- 1.0	+ cm3/1000 strokes : 8.0
cm3/1000 strokes : +- 1.0	+ Check tolerance + cm3/1000s. : 12.0
Check tolerance	I (1115/10003 12.0
cm3/1000s. : +- 4.0	<u> </u>
CIID7 100001	
Spreed	CONTROL LEVER
Tolerance	
cm3/1000 strokes : 8.0	+ control lever
··	position degree : 29.0
Check tolerance	+ tolerance degree : + 4.0
cm3/1000s. : 12.0	+
	+ control lever
	+ position degree : 90.0
(B) SETTING OF INJECTION PUMP	tolerance degree : + 4.0
WITH GOVERNOR	†
	ACCEMBLY COVERNOR CETTING
GUIDE SLEEVE TRAVEL	ASSEMBLY GOVERNOR SETTING
GOIDE STEERE LEWAST	Rated speed rpm : 1050
Rated speed rpm : 1056	+ rack travel mm : 13.10
guide sleeve	Tack crayee man
travel mm : 5.06	Rated speed rpm : 1103
Tolerance mm : +- 0.25	+ Tolerance 1/min : + 4
	+ rack travel mm : 4.00
Rated speed rpm : 720	+
guide sleeve	+ rack travel mm : 0.50
travel mm : -7.04	† Tolerance mm : + 0.50
Tolerance mm : + 0.25	+ Rated speed rpm : 1150
	+
Rated speed rpm : 1200	+ Rated speed rpm : 1051
guide sleeve travel mm : 17.59	† rack travel mm : 13.10
	Rated speed rpm : 1104
Tolerance mm : +- 0.25	+ Rated speed rpm : 1104 + Tolerance 1/min : +- 4
Rated speed rpm : 1125	+ rack travel mm : 4.00
guide sleeve	r don cravet inn
travel mm : 10.00	rack travel mm : 0.50
Tolerance mm : + 0.25	Tolerance mm : + 0.50
The second secon	+ Rated speed rpm : 1150
Rated speed rpm : 1190	+
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Rated speed rpm : 1052

rack travel mm	: 13.10
Rated speed rpm	: 1105
Tolerance 1/min	: +- 4
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: +- 0.50
Rated speed rpm	: 1150
Rated speed rpm	: 1053
rack travel mm	: 13.10
Rated speed rpm	: 1106
Tolerance 1/min	: ← 4
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: + 0.50
Rated speed rpm	: 1150
Rated speed rpm rack travel mm	
Rated speed rpm	: 1107
Tolerance 1/min	: ← 4
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: + 0.50
Rated speed rpm	: 1150
Rated speed rpm	: 1055
rack travel mm	: 13.10
Rated speed rpm	: 1108
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: + 0.50
Rated speed rpm	: 1150
TORQUE CONTROL	
Rated speed rpm	: 850
rack travel mm	: 14.15
Tolerance mm	: + 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	

500

1500

rack travel mm	: 14.15
Tolerance mm	: + 0.05
MEASUREMENT	
Pressure hPa	: -
Rated speed rpm	: 500
rack travel mm	: 11.00
Tolerance mm	: + 0.20
Rated speed rpm	: 500
Pressure hPa	: 210
rack travel mm	: 11.90
Tolerance mm	: + 0.20
Pressure hPa	: 440
rack travel mm	: 13.45
Tolerance mm	: + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure
hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 177.0
Tolerance
cm3/1000 strokes : + 1.0
Check tolerance
cm3/1000s. : + 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 10.40 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0

Rated speed rpm :

Pressure hPa

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.07.95 Test oil : ISO 4113

Combination No. : 0 402 648 600

Injection pump

Pump designation : PE8P12OA92O/4LS7266

: -2

EP type number : 0 412 628 901

Governor

Governer design. : RQ900PA758-20 Governer no. : 0 421 801 689

Cust. part No. : 1371442

Customer—spec. information Customer : SCANIA Motor : DSC1457A

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Vibration damper

(RoBo diaphragm) : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

: +- 0.70

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-2-7-3-4

: - 5- 6- 8

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.30

Check

tolerance °NW : ← 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 16.15 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 315.0

Tolerance cm3/1000 strokes : +- 1.0	<u> </u>
	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s. : +- 4.0	Rated speed rpm : 700 Aneroid pressure
Spreed	+ hPa : 1500
Tolerance cm3/1000 strokes : 8.0	+ Del. quantity + cm3/1000 strokes : 315.0 + Tolerance
Check tolerance cm3/1000s. : 12.0	- cm3/1000 strokes : + 1.0 - Check tolerance
	- cm3/1000s. : +- 4.0 - Spreed
Rack travel in mm : 5.60	† Tolerance
Tolerance mm : + 0.10	+ cm3/1000 strokes : 8.0
Del. quantity cm3/1000 strokes : 19.0	+ Check tolerance + cm3/1000s. : 12.0
Tolerance	+ cm3/1000s. : 12.0
cm3/1000 strokes : +- 4.0	+
Check tolerance	
cm3/1000s. : + 6.0 Spreed	CONTROL LEVER
Tolerance	+ control lever
cm3/1000 strokes : 5.0	position degree : 28.0
Check tolerance	tolerance degree : + 4.0
cm3/1000s. : 9.0	1
	+ control lever
	† position degree : 89.0
(B) SETTING OF INJECTION PUMP	+ tolerance degree : + 4.0
WITH GOVERNOR	+
	<u> </u>
	ACCOMPLY COURDINGS COTTAINS
GUIDE SLEEVE TRAVEL	ASSEMBLY GOVERNOR SETTING
GUIDE SLEEVE TRAVEL	+
GUIDE SLEEVE TRAVEL Rated speed rpm : 907	†
Rated speed rpm : 907 guide sleeve	Rated speed rpm : 900 rack travel mm : 15.10
Rated speed rpm : 907 guide sleeve travel mm : 3.98	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962
Rated speed rpm : 907 guide sleeve	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1000 Rated speed rpm : 901
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1000
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve travel mm : 17.28	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1000 Rated speed rpm : 901 rack travel mm : 15.10
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1000 Rated speed rpm : 901 rack travel mm : 15.10 Rated speed rpm : 963
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve travel mm : 17.28 Tolerance mm : + 0.25	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1000 Rated speed rpm : 901 rack travel mm : 15.10 Rated speed rpm : 963 Tolerance 1/min : + 5
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve travel mm : 17.28	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1000 Rated speed rpm : 901 rack travel mm : 15.10 Rated speed rpm : 963
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve travel mm : 17.28 Tolerance mm : + 0.25 Rated speed rpm : 985	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 901 rack travel mm : 15.10 Rated speed rpm : 963 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve travel mm : 17.28 Tolerance mm : + 0.25 Rated speed rpm : 985 guide sleeve guide sleeve : 985 guide sleeve	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 901 rack travel mm : 15.10 Rated speed rpm : 963 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance 1/min : + 5 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve travel mm : 17.28 Tolerance mm : + 0.25 Rated speed rpm : 985 guide sleeve travel mm : 10.00 Tolerance mm : + 0.25	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 901 rack travel mm : 15.10 Rated speed rpm : 963 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve travel mm : 17.28 Tolerance mm : + 0.25 Rated speed rpm : 985 guide sleeve travel mm : 10.00 Tolerance mm : + 0.25 Rated speed rpm : 10.00 Tolerance mm : + 0.25	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : +- 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 901 rack travel mm : 15.10 Rated speed rpm : 963 Tolerance 1/min : +- 5 rack travel mm : 4.00 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 0.50 Rated speed rpm : 0.50 Rated speed rpm : 1000
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve travel mm : 17.28 Tolerance mm : + 0.25 Rated speed rpm : 985 guide sleeve travel mm : 10.00 Tolerance mm : + 0.25 Rated speed rpm : 10.00 Tolerance mm : + 0.25	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 901 rack travel mm : 15.10 Rated speed rpm : 963 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 4.00 Rated speed rpm : 963 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 0.50 Rated speed rpm : 902
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve travel mm : 17.28 Tolerance mm : + 0.25 Rated speed rpm : 985 guide sleeve travel mm : 10.00 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve travel mm : 10.00 Tolerance mm : + 10.00 Tolerance mm : 10.50 guide sleeve travel mm : 10.50 guide sleeve travel mm : 10.50	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 901 rack travel mm : 15.10 Rated speed rpm : 963 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 0.50 Rated speed rpm : 0.50 Rated speed rpm : 1000
Rated speed rpm : 907 guide sleeve travel mm : 3.98 Tolerance mm : + 0.15 Rated speed rpm : 630 guide sleeve travel mm : -6.82 Tolerance mm : + 0.25 Rated speed rpm : 1050 guide sleeve travel mm : 17.28 Tolerance mm : + 0.25 Rated speed rpm : 985 guide sleeve travel mm : 10.00 Tolerance mm : + 0.25 Rated speed rpm : 10.00 Tolerance mm : + 0.25	Rated speed rpm : 900 rack travel mm : 15.10 Rated speed rpm : 962 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 901 rack travel mm : 15.10 Rated speed rpm : 963 Tolerance 1/min : + 5 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : 4.00 rack travel mm : 0.50 Rated speed rpm : 963 Tolerance mm : 4.00 Rated speed rpm : 963 Tolerance mm : 963 Tolerance mm : 963 Tolerance 1/min : + 5 rack travel mm : 963 Tolerance 1/min : + 5 rack travel mm : 963

Tolerance 1/min rack travel mm	
rack travel mm	: 0.50
Tolerance mm	: ← 0.50
Rated speed rpm	: 1000
Rated speed rpm rack travel mm	
Rated speed rpm Tolerance 1/min rack travel mm	: 5
rack travel mm Tolerance mm Rated speed rpm	: ← 0.50
Rated speed rpm	: 904
rack travel mm	: 15.10
Rated speed rpm	: 966
Tolerance 1/min	: +- 5
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: ← 0.50
Rated speed rpm	: 1000
Rated speed rpm	: 905
rack travel mm	: 15.10
Rated speed rpm	: 967
Tolerance 1/min	: +- 5
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: ← 0.50
Rated speed rpm	: 1000
TORQUE CONTROL	
Rated speed rpm	: 700
rack travel mm	: 16.15
Tolerance mm	: + 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm	: 500
Pressure hPa	: 1500
rack travel mm	: 16.15
Tolerance mm	: + 0.05

MEASUREMENT

Pressure hPa	:	_
Rated speed rpm	:	500
rack travel mm	:	12.50
Tolerance mm	: +	- 0.20
Pated speed rom	•	500

Rated speed rpm :	500
-------------------	-----

Pressure hPa	:	420
rack travel mm	:	13.30
Tolerance mm	: +	- 0.20

Pressure hPa	:	680
rack travel mm	:	15.05
Tolerance mm	: +	- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	;	-
Rated speed rpm	:	500
Del quantity		
cm3/1000 strokes	:	221.0
Tolerance		
007/1000 ctpokes	•	1.0

cm3/1000 strokes	: +-	1.0
Check tolerance		
cm3/1000s.	: +-	4.0

1.0

STARTING FUEL DELIVERY

Rated speed rpm rack travel mm	: 100 : 12.50
Tolerance mm Del. quantity cm3/1000 strokes	: + 0.20 : 130.0
Tolerance cm3/1000 strokes	: + 20.0
Check tolerance	· + 24 0

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... : 30.05.95 Edition : ISO 4113 Test oil Combination No. : 0 402 648 944 Injection pump Pump designation : PE8P120A920/4LS7266 : -1 : 0 412 628 898 EP type number Governor Governer design. : RQ750PA758-15 : 0 421 801 660 Governer no. Cust. part No. : 1340528 Customer-spec. information Customer : SCANIA Motor : DS 14 TEST BENCH REQUIREMENTS Inlet line : 4.1 Vibration damper (RoBo diaphragm) : 3.2 Test oil inlet 40 temp. °C Tolerance °C : +- 2.0 Overflow valve : 1 417 413 025 Inlet press. bar : 2.5 Test nozzle holde : 1 688 901 104 assembly

251.5

: +- 1.5

Outside diameter : 6.0
x inside diameter: 2.0 x length mm : 600
REMARKS
(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values
BEGINNING OF DELIVERY
Test pressure bar : 26.0 Tolerance bar : + 1.0
Prestroke mm : 5.05 Tolerance mm : + 0.50 Check tolerance mm : + 0.10
Rack travel in mm : 10.50 Tolerance mm : + 1.50
Firing order : 1-2-7-3-4 :-5-6-8
Phasing : 0-45-90-135-180 : -225-270-315 Tolerance : + 0.30 Check tolerance *NW : + 0.50
Start of delivery mark
Barrel no. : 1
BASIC SETTING
Rated speed rpm : 700
Rack travel in mm: 14.95 Tolerance mm: + 0.05
Del. quantity cm3/1000 strokes : 287.0

Test lines : 1 680 750 008

bar

Opening pressure

Tolerance bar

Tolerance		+
cm3/1000 strokes	: ← 1.0	+
		+ FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s.	: +- 4.0	Rated speed rpm : 700
(110) 100001	4.0	Aneroid pressure
Spreed		hPa : -
Tolerance		+ Del. quantity
cm3/1000 strokes	: 8.0	+ cm3/1000 strokes : 287.0
Check tolerance	***************************************	+ Tolerance + cm3/1000 strokes : + 1.0
	: 12.0	Check tolerance
		+ cm3/1000s. : +- 4.0
	5 70	+ Spreed
Rack travel in mm		Tolerance cm3/1000 strokes : 8.0
Tolerance mm Del. quantity	: ← 0.10	+ cm3/1000 strokes : 8.0 + Check tolerance
cm3/1000 strokes	: 16.0	+ cm3/1000s. : 12.0
Tolerance		+
cm3/1000 strokes	: ← 4.0	+
Check tolerance		CONTROL LEVED
cm3/1000s. Spreed	: + 6.0	+ CONTROL LEVER
Tolerance		T control lever
cm3/1000 strokes	: 5.0	position degree : 36.0
Check tolerance		tolerance degree : +- 4.0
cm3/1000s.	: 9.0	†
		+ control lever + position degree : 88.0
(B) SETTING OF INJ	ECTION PUMP	tolerance degree : + 4.0
WITH GOVERNOR		+
		+
GUIDE SLEEVE TRAVE	1	+ ASSEMBLY GOVERNOR SETTING
GOIDE SEENE TRAVE	L	Rated speed rpm : 750
Rated speed rpm	: 759	+ rack travel mm : 13.90
guide sleeve		+
travel mm	: 6.36	+ Rated speed rpm : 799
Tolerance mm	: ← 0.25	+ Tolerance 1/min : + 4 + rack travel mm : 4.00
Rated speed rpm	: 520	T TACK CLAVEL MINI . 4.00
guide sleeve		+ rack travel mm : 0.50
travel mm	: -5.69	+ Tolerance mm : + 0.50
Tolerance mm	: ← 0.25	+ Rated speed rpm : 850
Rated speed rpm :	: 850	+ Rated speed rpm : 751
guide sleeve	. 050	+ rack travel mm : 13.90
travel mm	: 16.58	+
Tolerance mm	: +- 0.25	+ Rated speed rpm : 800
Ontrol annual com	. 709	Tolerance 1/min : + 4
Rated speed rpm : guide sleeve	: 798	rack travel mm : 4.00
travel mm :	: 10.00	+ rack travel mm : 0.50
	+ 0.25	+ Tolerance mm : + 0.50
		+ Rated speed rpm : 850
Rated speed rpm :	: 860	Botod aroad 753
guide sleeve travel mm	: 11.50	+ Rated speed rpm : 752 + rack travel mm : 13.90
Tolerance mm :	: + 0.50	- 1000 CT QVCC (IRI) . 10.70
		+ Rated speed rpm : 801

Tolerance 1/min rack travel mm	: +- 4 : 4.00	‡	MEASUREMENT	
rack travel mm Tolerance mm Rated speed rpm		† † †	Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 11.00
Rated speed rpm rack travel mm	: 753 : 13.90	‡	Rated speed rpm	
Rated speed rpm Tolerance 1/min rack travel mm		† † †	Pressure hPa rack travel mm Tolerance mm Pressure hPa	: 220 : 12.00 : + 0.20 : 510
rack travel mm Tolerance mm Rated speed rpm	: 0.50 : + 0.50 : 850		rack travel mm Tolerance mm	: 13.95 : + 0.05
Rated speed rpm rack travel mm		†	FUEL DELIVERY CHA	
Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm	: + 4 : 4.00 : 0.50 : + 0.50	† † † †	Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: - : 500
Rated speed rpm rack travel mm	: 755	†	cm3/1000 strokes Check tolerance cm3/1000s.	: + 1.0 : + 4.0
Rated speed rpm Tolerance 1/min rack travel mm	: ← 4	Ī		
rack travel mm Tolerance mm Rated speed rpm	: 0.50 : ← 0.50 : 850	† † † † †	Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 100 : 11.00 : + 0.20
TORQUE CONTROL			Tolerance cm3/1000 strokes	: 130.0 : +- 20.0
Rated speed rpm rack travel mm Tolerance mm	: 700 : 14.95 : +- 0.05	+++++++++++++++++++++++++++++++++++++++	Check tolerance cm3/1000s.	: +- 24.0
ANEROID/ALTITUDE COMPENSATOR TEST		† †		
SETTING		$\frac{1}{1}$		
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 14.95 : + 0.05	# + + +	End of test speci	fication sheet

: 500 mq. 11.00 m : + 0.20 500 DM 220 12.00 : ← 0.20 510 : 13.95 : +- 0.05 CHARACTERISTICS ure 500 DM kes : 177.0 kes : +- 1.0 ce : +- 4.0 DELIVERY pm : 100 m : 11.00 : + 0.20 kes : 130.0 kes : +- 20.0 ce : +- 24.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.05.95 Test oil : ISO 4113

Combination No. : 0 402 648 963

Injection pump

Pump designation : PE8P120A920/4LS7266

: -1

EP type number : 0 412 628 898

Governor

Governer design. : RQ900PA758-18 Governer no. : 0 421 801 687

Cust. part No. : 1340530

Customer-spec. information Customer : SCANIA Motor : D 14

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Vibration

damper

(RoBo diaphragm) : 3.2

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 : +- 0.1 Tolerance bar

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

251.5 bar : + 1.5 Tolerance bar

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm: 5.05 : + - 0.05Tolerance mm Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

: 1-2-7-3-4 Firing order

: - 5- 6- 8

: 0-45-90-135-180 Phasing

: -225-270-315 : + 0.30

Check

Tolerance

tolerance °NW : **←** 0.50

Start of delivery mark

Barrel no.

BASIC SETTING

Rated speed rpm 850

Rack travel in mm: 14.45 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 262.0

L15

Tolerance cm3/1000 strokes : +- 1.0	control lever position degree : 87.0
Check tolerance cm3/1000s. : +- 4.0	tolerance degree : + 4.0
Spreed	ASSEMBLY GOVERNOR SETTING
Tolerance cm3/1000 strokes : 8.0	Rated speed rpm : 900 rack travel mm : 13.40
Check tolerance cm3/1000s. : 12.0	Rated speed rpm : 955 Tolerance 1/min : + 4 rack travel mm : 4.00
Rack travel in mm: 5.30	+
Tolerance mm : +- 0.10 Del. quantity	+ rack travel mm : 0.50 + Tolerance mm : + 0.50
cm3/1000 strokes : 16.0 Tolerance	Rated speed rpm : 1000
cm3/1000 strokes : +- 4.0	Rated speed rpm : 901
Check tolerance cm3/1000S. : +- 6.0	† rack travel mm : 13.40
Spreed	Rated speed rpm : 956
Tolerance	+ Tolerance 1/min : + 4
cm3/1000 strokes : 5.0 Check tolerance	rack travel mm : 4.00
cm3/1000s. : 9.0	rack travel mm : 0.50
S.11.07 (.0000)	+ Tolerance mm : + 0.50
	+ Rated speed rpm : 1000
(B) SETTING OF INJECTION PUMP	+
WITH GOVERNOR	+ Rated speed rpm : 902
	rack travel mm : 13.40
	Rated speed rpm : 957
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance 1/min : + 4
	+ rack travel mm : 4.00
Rated speed rpm : 850	+
Aneroid pressure	rack travel mm : 0.50
hPa : 1500	+ Tolerance mm : + 0.50
Del. quantity	+ Rated speed rpm : 1000
cm3/1000 strokes : 262.0 Tolerance	Rated speed rpm : 903
cm3/1000 strokes : + 1.0	rack travel nm : 13.40
Check tolerance	Tuck travet iiii . 13.40
cm3/1000s. : + 4.0	Rated speed rpm : 958
Spreed	+ Tolerance 1/min : + 4
Tolerance	+ rack travel mm : 4.00
cm3/1000 strokes : 8.0	+
Check tolerance	+ rack travel mm : 0.50
cm3/1000s. : 12.0	+ Tolerance mm : + 0.50
	Rated speed rpm : 1000
	Rated speed rpm : 904
CONTROL LEVER	+ rack travel mm : 13.40
CONTINUE SEVEN	13.40
control lever	Rated speed rpm : 959
position degree : 25.0	+ Tolerance 1/min : + 4
tolerance degree : +- 4.0	rack travel mm : 4.00
-	rack travel mm : 0.50
	T rack travet mm : 0.30

: +- 0.50 Tolerance mm Rated speed rpm 1000 Rated speed rpm 905 rack travel mm 13.40 960 Rated speed rpm Tolerance 1/min 4.00 rack travel mm rack travel mm 0.50 : +- 0.50 Tolerance mm Rated speed rpm 1000

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 14.45
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : - Rated speed rpm : 500 rack travel mm : 11.00 Tolerance mm : + 0.20

Rated speed rpm : 500

Pressure hPa : 220 rack travel mm : 12.00 Tolerance mm : + 0.20

Pressure hPa : 510 rack travel mm : 13.95 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity

cm3/1000 strokes : 177.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0 Check tolerance cm3/1000s. : \leftarrow 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 11.00 Tolerance mm : + 0.20 Del. quantity

cm3/1000 strokes : 130.0

Tolerance

cm3/1000 strokes : +- 20.0

Check tolerance

cm3/1000s. : +- 24.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.08.95 Test oil : ISO 4113

Combination No. : 0 402 678 826

Injection pump

Pump designation : PE8P12OA32OLS7878-1

EP type number : 0 412 628 906

Governor

Governer design. : RSV400...1000P1A589

Governer no. : 0 421 833 449

Cust. part No. : 9275722

Customer—spec. information
Customer : LIEBHERR
Motor : D 9308 TI
Power KW : 330.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 105 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50Tolerance mm : + 1.50

Firing order : 1-8-7-2-6 :-3-5-4

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.50

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm : 13.30
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 259.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s : +- 4.0

C	
Spreed +	CONTROL LEVER
cm3/1000 strokes : 5.0	
Check tolerance	control lever position degree : 100.0
cm3/1000s. : 9.0	tolerance degree : +- 4.0
+	~
Rated speed rpm : 400	RATED SPEED
Rack travel in mm: 4.75	rack travel mm : 12.30
Tolerance mm : + 0.20 + Del. quantity +	Rated speed rpm : 940 Tolerance 1/min : +- 5
cm3/1000 strokes : 26.0	Toterance Minn . +- 3
Tolerance	rack travel mm : 4.00
cm3/1000 strokes : +- 3.0 +-	Rated speed rpm : 990 Tolerance 1/min : + 15
cm3/1000s. : +- 6.0	
Spreed	rack travel mm : 0.85
Tolerance + cm3/1000 strokes : 6.0	Tolerance mm : + 0.55 Rated speed rpm : 1160
Check tolerance	•
cm3/1000s. : 10.0	rack travel mm : 4.00 Rated speed rpm : 995
I	Rateu Speeu (piii . 993
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	LOW IDLE
1	
GUIDE SLEEVE POSITION	and the Lange
doing officer and the second	control lever position degree : 76.0
Rated speed rpm : 800	
Rated speed rpm : 800	position degree : 76.0 tolerance degree : + 4.0
+	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400
Rated speed rpm : 800 + Rack travel in mm : 0.50 + Rack travel in mm : 0.50	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing:
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing: Rated speed rpm : 400 rack travel mm : 4.75
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing: Rated speed rpm : 400
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : 4.75 Tolerance mm : + 0.20 rack travel mm : 2.00
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : 4.75 Tolerance mm : 2.00 Rated speed rpm : 500
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : 4.75 Tolerance mm : 2.00
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : 4.75 Tolerance mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : 4.75 Tolerance mm : 2.00 Rated speed rpm : 500
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : 4.75 Tolerance mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : 4.75 Tolerance mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900 rack travel mm : 913.30
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : 4.75 Tolerance mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : 4.75 Tolerance mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900 rack travel mm : 13.30 Tolerance mm : + 0.05 Rated speed rpm : 500
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0	position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 3.75 Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : 4.75 Tolerance mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900 rack travel mm : 13.30 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1200
rack travel mm : 13.30
Tolerance mm : +- 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 11.60
Tolerance mm : + 0.15

Rated speed rpm : 500

Pressure hPa : 930 rack travel mm : 13.10 Tolerance mm : + 0.05

Pressure hPa : 840 rack travel mm : 12.50 Tolerance mm : +- 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1200
Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 275.0
Tolerance
cm3/1000 strokes : +- 3.0
Check tolerance

6.0

4.0

cm3/1000s. : +-

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 220.0
Tolerance
cm3/1000 strokes : + 1.0
Check tolerance

cm3/1000s. Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

BREAKAWAY

Rack travel in mm: 12.30
Rated speed rpm: 940
Tolerance 1/min: + 5

STARTING FUEL DELIVERY

Rated speed rpm 100 20.50 rack travel mm : : +- 0.50 Tolerance mm Del. quantity cm3/1000 strokes : 215.0 Tolerance cm3/1000 strokes : +- 20.0 Check tolerance cm3/1000s.: +- 24.0

LOW IDLE

Rated speed rpm 400 4.75 rack travel mm Tolerance mm 0.20 Del. quantity cm3/1000 strokes 26.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.08.95 Test oil : ISO 4113

Combination No. : 0 402 678 826A

Injection pump

Pump designation : PE8P12OA32OLS7878-1

EP type number : 0 412 628 906

Governor

Governer design. : RSV400...1000P1A589

Governer no. : 0 421 833 449

Cust. part No. : 9277414

Customer—spec. information
Customer : LIEBHERR
Motor : D 9308 TI-E

Power KW : 330.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 105 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-8-7-2-6

: - 3- 5- 4

Phasing : 0-45-90-135-180

: -225-270-315 Tolerance : +- 0.30

Check

tolerance *NW : + 0.50

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm : 13.30

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 259.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

1	
Spreed	
Tolerance	CONTROL LEVER
cm3/1000 strokes : 5.0	anntral lavar
Check tolerance	control lever position degree : 100.0
cm3/1000s. : 9.0	tolerance degree : +- 4.0
+	
Rated speed rpm : 400	RATED SPEED
Rack travel in mm: 4.75	rack travel mm : 12.30
Tolerance mm : + 0.20	Rated speed rpm : 940
Del. quantity	Tolerance 1/min : +- 5
cm3/1000 strokes : 26.0 +	march Americal company (200
Tolerance + 3.0 +	rack travel mm : 4.00 Rated speed rpm : 990
Check tolerance	Tolerance 1/min : + 15
cm3/1000s. : +- 6.0 +	
Spreed +	rack travel mm : 0.85
Tolerance + cm3/1000 strokes : 6.0 +	Tolerance mm : +- 0.55 Rated speed rpm : 1160
Check tolerance	raced speed (pill . 1100
cm3/1000s. : 10.0	rack travel mm : 4.00
+	Rated speed rpm : 995
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	
+	LOW IDLE
†	
GUIDE SLEEVE POSITION	control lever
4	position degree : 76.0
Rated speed rpm : 800	tolerance degree : +- 4.0
Rack travel in mm: 0.50	Sotting point worth hymnon enning
Tolerance mm : + 0.20	Setting point w/out bumper spring
+	Rated speed rpm : 400
governor spring +	
nno-tonoion 1	rack travel mm : 3.75
pre-tension	
click setting x : 4.00	rack travel mm : 3.75 Testing:
click setting x : 4.00	Testing: Rated speed rpm : 400
	Testing: Rated speed rpm : 400 rack travel mm : 4.75
FULL LOAD DELIVERY AT FULL LOAD STOP	Testing: Rated speed rpm : 400
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900	Testing: Rated speed rpm : 400 rack travel mm : 4.75
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200	Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : + 0.20 rack travel mm : 2.00 Rated speed rpm : 500
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity	Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : + 0.20 rack travel mm : 2.00
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0	Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : + 0.20 rack travel mm : 2.00 Rated speed rpm : 500
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity	Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : + 0.20 rack travel mm : 2.00 Rated speed rpm : 500
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : + 0.20 rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : + 0.20 rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : + 0.20 rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900 rack travel mm : 13.30
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : + 0.20 rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : + 0.20 rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900 rack travel mm : 13.30 Tolerance mm : + 0.05 Rated speed rpm : 500
Click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 900 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 259.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0	Testing: Rated speed rpm : 400 rack travel mm : 4.75 Tolerance mm : + 0.20 rack travel mm : 2.00 Rated speed rpm : 500 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 900 rack travel mm : 13.30 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 Pressure hPa 1200 : 13.30 rack travel mm : + 0.05Tolerance mm

MEASUREMENT

Pressure hPa 500 Rated speed rpm 11.60 rack travel mm Tolerance mm : + 0.10

500 Rated speed rpm

Pressure hPa 930 13.10 rack travel mm : + 0.05Tolerance mm

Pressure hPa 840 12.50 rack travel mm Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1200 hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance

Aneroid pressure

hPa Rated speed rpm 550 Del. quantity

cm3/1000 strokes : 220.0

Tolerance

cm3/1000s.

cm3/1000 strokes 1.0

Check tolerance

cm3/1000s. : +--4.0

Spreed Tolerance

8.0 cm3/1000 strokes :

Check tolerance cm3/1000s.

12.0

6.0

BREAKAWAY

Rack travel in mm : 12.30 Rated speed rpm Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100 20.50 rack travel mm : + - 0.50Tolerance mm Del. quantity cm3/1000 strokes : 215.0 Tolerance cm3/1000 strokes : \leftarrow 10.0 Check tolerance cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm 400 rack travel mm 4.75 Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 26.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.08.95 Edition : ISO 4113 Test oil

Combination No. : 0 402 678 8260

Injection pump

Pump designation: PE8P120A320LS7878-1

EP type number : 0 412 628 906

Governor

Governer design. : RSV400...1000P1A589

: 0 421 833 449 Governer no.

Cust. part No. : 9277816

Customer-spec. information Customer : LIEBHERR : D 9408 T-E Motor

Power KW : 267.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance *C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

: 105 min. L/h Tolerance L/h: + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : + 1.5 Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +-1.0

Prestroke mm 4.55 : + 0.05 Tolerance mm

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

: 1-8-7-2-6 Firing order

: - 3- 5- 4

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : +- 0.30

Check

: + 0.50tolerance *NW

BASIC SETTING

900 Rated speed rpm :

Rack travel in mm : 12.70

: **←** 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 240.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. 4.0

	+ tolerance degree : + 4.0
Spreed	TATES OPERS
Tolerance cm3/1000 strokes : 5.0	+ RATED SPEED
CIBS 1000 SCIORES . J.O	Frack travel mm : 11.70
Check tolerance	+ Rated speed rpm : 940
cm3/1000s. : 9.0	+ Tolerance 1/min : + 5
	+
Rated speed rpm : 400	+ rack travel mm : 4.00
Rack travel in mm : 4.75	+ Rated speed rpm : 1000 + Tolerance 1/min : + 15
Tolerance mm : +- 0.20	T roterance minim . +- 15
Del. quantity	rack travel mm : 0.85
cm3/1000 strokes : 25.0	+ Tolerance mm : + 0.55
Tolerance	+ Rated speed rpm : 1160
cm3/1000 strokes : + 3.0	1
Check tolerance cm3/1000s. : +- 6.0	+ rack travel mm : 4.00 + Rated speed rpm : 1020
Spreed	T kated speed (pill : 1020
Tolerance	1
cm3/1000 strokes : 6.0	
Check tolerance	+ LOW IDLE
cm3/1000s. : 10.0	†
	+ control lever
(B) SETTING OF INJECTION PUMP	position degree : 76.0
WITH GOVERNOR	+ tolerance degree : + 4.0
	+
	+ Setting point w/out bumper spring
GUIDE SLEEVE POSITION	Rated speed rpm : 400
OOIDE GEECAE LOOISION	+ rack travel mm : 3.75
governor spring	+
pre-tension	† Testing:
click setting x : 4.00	Potential and a control of the contr
	+ Rated speed rpm : 400 + rack travel mm : 4.75
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance mm : + 0.20
TOLK COND DECEMENT IN TOLK COND OTO	+
Rated speed rpm : 900	rack travel mm : 2.00
Aneroid pressure	+ Rated speed rpm : 500_
hPa : 1100	Tolerance 1/min : +- 30
Del. quantity cm3/1000 strokes : 240.0	I
Tolerance	TORQUE CONTROL
cm3/1000 strokes : +- 1.0	+
Check tolerance	+ Rated speed rpm : 900
cm3/1000s. : +- 4.0	rack travel mm : 12.70 Tolerance mm : + 0.05
Spreed Tolerance	Tolerance mm : + 0.05
cm3/1000 strokes : 5.0	Rated speed rpm : 500
Check tolerance	rack travel mm : 12.70
cm3/1000s. : 9.0	Tolerance mm : + 0.05
	†
	ANEROID/ALTITUDE
CONTROL LEVER	COMPENSATOR TEST
	+
control lever	+
position degree : 100.0	+ SETTING

Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1100 : 12.70 : +- 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 11.20 : +- 0.10
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 810 : 12.40 : + 0.05
Pressure hPa rack travel mm Tolerance mm	: 710 : 12.60 : +- 0.10
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 1100 : 500
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1100 : 500
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1100 : 500 : 253.0 : +- 3.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1100 : 500 : 253.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm	: 1100 : 500 : 253.0 : +- 3.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 1100 : 500 : 253.0 : + 3.0 : + 6.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1100 : 500 : 253.0 : + 3.0 : + 6.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 1100 : 500 : 253.0 : +- 3.0 : +- 6.0 : - : 550 : 206.0

BREAKAWAY

Check tolerance cm3/1000s.

Rack travel in mm: 11.70
Rated speed rpm: 940
Tolerance 1/min: + 5

12.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 215.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm : 400 4.75 rack travel mm : Tolerance mm : **←** 0.20 Del. quantity cm3/1000 strokes : 25.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance 10.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.08.95 Test oil : ISO 4113

Combination No. : 0 402 678 826D

Injection pump

Pump designation : PE8P120A320LS7878-1

EP type number : 0 412 628 906

Governor

Governer design. : RSV400...1000P1A589

: 0 421 833 449 Governer no.

Cust. part No. : 9278716

Customer-spec. information Customer : LIEBHERR : D 9308 TI-E Motor

Power KW : 340.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 105 Tolerance l/h: \leftarrow 10.0

Test nozz'e holde

: 1 688 901 105 assembly

Opening pressure

bar 208.5 : + 1.5 Tolerance bar

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

: 1-8-7-2-6 Firing order

: - 3- 5- 4

: 0-45-90-135-180 Phasing

: -225-270-315 Tolerance : +- 0.30

Check

tolerance "NW : +- 0.50

BASIC SETTING

Rated speed rpm : 950

Rack travel in mm: 13.35

Tolerance mm : **←** 0.05

Del. quantity cm3/1000 strokes : 259.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance : +cm3/1000s. 4.0

+	tolerance degree : +- 4.0
Spreed	
Tolerance + cm3/1000 strokes : 5.0 +	RATED SPEED
cm5/1000 strokes : 5.0 +	rack travel mm : 12.35
Check tolerance	Rated speed rpm : 990
cm3/1000s. : 9.0	Tolerance 1/min : +- 5
1	
Rated speed rpm : 400 +	rack travel mm : 4.00
+	Rated speed rpm : 1065
Rack travel in mm: 4.75	Tolerance 1/min : + 15
Tolerance mm : + 0.20 +	0.05
Del. quantity + cm3/1000 strokes : 25.0 +	rack travel mm : 0.85 Tolerance mm : +- 0.55
Tolerance	Rated speed rpm : 1160
cm3/1000 strokes : + 3.0	rated speed (pill : 1100
Check tolerance	rack travel mm : 4.00
cm3/1000s. : + 6.0	Rated speed rpm : 1075
Spreed	
Tolerance +	
cm3/1000 strokes : 6.0 +	
Check tolerance +	LOW IDLE
cm3/1000s. : 10.0 +	
†	nambual lation
(B) SETTING OF INJECTION PUMP	control lever position degree : 77.0
WITH GOVERNOR	tolerance degree : +- 4.0
WITH GOVERNOR	toterance degree . The 4.0
1	Setting point w/out bumper spring
	are an all the same and a sample of the samp
GUIDE SLEEVE POSITION +	Rated speed rpm : 400
+	rack travel mm : 3.75
governor spring +	· · •
pre-tension +	Testing:
click setting x : 4.00	Rated speed rpm : 400
	Rated speed rpm : 400 rack travel mm : 4.75
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.20
FOLE COAD DECEMENT AT FOLE COAD OTO	TO COT CATOC TIPE
Rated speed rpm : 950	rack travel mm : 2.00
Aneroid pressure	Rated speed rpm : 500
hPa : 1400 +	Tolerance 1/min : + 30
Del. quantity +	
cm3/1000 strokes : 259.0 +	TAROUT ANTENN
Tolerance + 1.0	TORQUE CONTROL
cm3/1000 strokes : + 1.0 + Check tolerance	Rated speed rpm : 950
cm3/1000s. : +- 4.0	rack travel mm : 13.35
Spreed	Tolerance mm : +- 0.05
Tolerance	, , , , , , , , , , , , , , , , , , , ,
cm3/1000 strokes : 5.0	Rated speed rpm : 500
Check tolerance +	rack travel mm : 13.35
cm3/1000s. : 9.0	Tolerance mm : + 0.05
+	
†	ANEDOTO (AL TITUDE
CONTROL LEVED	ANEROID/ALTITUDE COMPENSATOR TEST
CONTROL LEVER	COMPENSATOR TEST
control lever	
position degree : 102.0	SETTING
beer a rest median and a remain	

L28

Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1400 : 13.35 : ← 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 500 : 11.50 : + 0.10
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 920 : 12.80 : ← 0.05
Pressure hPa rack travel mm Tolerance mm	: 800 : 11.80 : ← 0.10
FUEL DEL TUEDV CHA	ADACTEDICTICS
FUEL DELIVERY CHA	IKACTERISTICS
Aneroid pressure	4400
Aneroid pressure hPa Rated speed rpm	: 1400
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 1400 : 500
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1400 : 500 : 273.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 1400 : 500 : 273.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1400 : 500 : 273.0 : +- 3.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1400 : 500 : 273.0 : +- 3.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity	: 1400 : 500 : 273.0 : +- 3.0 : +- 6.0 : - : 550
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 1400 : 500 : 273.0 : +- 3.0 : +- 6.0 : - : 550 : 217.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1400 : 500 : 273.0 : +- 3.0 : +- 6.0 : : 550 : 217.0 : +- 1.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1400 : 500 : 273.0 : +- 3.0 : +- 6.0 : - : 550 : 217.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Tolerance cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance	: 1400 : 500 : 273.0 : + 3.0 : + 6.0 : - 550 : 217.0 : + 1.0 : + 4.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance	: 1400 : 500 : 273.0 : + 3.0 : + 6.0 : - 550 : 217.0 : + 1.0 : + 4.0 : 8.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 1400 : 500 : 273.0 : + 3.0 : + 6.0 : - 550 : 217.0 : + 1.0 : + 4.0

12.35

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 215.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm 400 4.75 rack travel mm Tolerance mm : **←** 0.20 Del. quantity cm3/1000 strokes : 25.0 Tolerance cm3/1000 strokes : +-3.9 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

End of test specification sheet

Rack travel in mm :
Rated speed rpm :
Tolerance 1/min :

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 30.08.95

Test oil

: ISO 4113

Combination No. : 0 402 678 826E

Injection pump

Pump designation : PE8P120A320LS7878-1

EP type number : 0 412 628 906

Governor

Governer design. : RSV400...1000P1A589

Governer no. : 0 421 833 449

Cust. part No. : 9279387

Customer-spec. information : LIEBHERR Customer

Motor

: D 9308 TI-E

Power KW

: 317.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1 417 413 025

Inlet press. bar :

1.5

Tolerance bar : +- 0.1

Overflow quantity

min. L/h

: 105

Tolerance 1/h

: +- 10.0

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

bar

208.5

Tolerance bar

1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter :

3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 4.55 : **←** 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-8-7-2-6

: - 3- 5- 4

: 0-45-90-135-180 Phasing

: -225-270-315

Tolerance

: + 0.30

Check

tolerance "NW

: + - 0.50

BASIC SETTING

Rated speed rpm

900

13.00 Rack travel in mm: : **←** 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 251.0

Tolerance

cm3/1000 strokes : +-

1.0

Check tolerance

cm3/1000s.

4.0

	tolerance degree : + 4.0
Spreed +	DATES ODECS
Tolerance + cm3/1000 strokes : 5.0 +	RATED SPEED
T 3.0	rack travel mm : 12.00
Check tolerance	Rated speed rpm : 940
cm3/1000s. : 9.8 +	Tolerance 1/min : + 5
Potest arrest num a /00	mode through me
Rated speed rpm : 400	rack travel mm : 4.00 Rated speed rpm : 990
Rack travel in mm: 4.75	Tolerance 1/min : + 15
Tolerance mm : + 0.20 +	
Del. quantity	rack travel mm : 0.85
cm3/1000 strokes : 26.0	Tolerance mm : + 0.55 Rated speed rpm : 1160
cm3/1000 strokes : +- 3.0	Nateu speeu i piii . 1100
Check tolerance	rack travel mm : 4.00
cm3/1000s. : + 6.0 +	Rated speed rpm : 995
Spreed +	
cm3/1000 strokes : 6.0	
Check tolerance	LOW IDLE
cm3/1000s. : 10.0 +	
+	
(B) SETTING OF INJECTION PUMP	control lever position degree : 70.0
WITH GOVERNOR	tolerance degree : + 4.0
1	to to. a., or dog, or the second
+	Setting point w/out bumper spring
CUYAR OLERUE DOCUTION	Dated aread mm . (00
GUIDE SLEEVE POSITION +	Rated speed rpm : 400 rack travel mm : 3.75
governor spring	. 3010 0. 3700 1180
pre-tension +	Testing:
click setting x : 4.00 $+$	Data di anno di man
<u></u>	Rated speed rpm : 400 rack travel mm : 4.75
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.20
1	
Rated speed rpm : 900 +	rack travel mm : 2.00
Aneroid pressure + hPa : 1200 +	Rated speed rpm : 500 Tolerance 1/min : +- 30
hPa : 1200 + Del. quantity +	Toterance thin : - 50
cm3/1000 strokes : 251.0	
Tolerance	TORQUE CONTROL
cm3/1000 strokes : + 1.0 +	Date of an end one of 000
Check tolerance + 4.0 +	Rated speed rpm : 900 rack travel mm : 13.00
Spreed	Tolerance mm : + 0.05
Tolerance	
cm3/1000 strokes : 5.0 +	Rated speed rpm : 500
Check tolerance + cm3/1000s. : 9.0 +	rack travel mm : 13.00 Tolerance mm : +- 0.05
cm3/1000s. : 9.0	roter diffe mili . T U.U.
1	
	ANEROID/ALTITUDE
CONTROL LEVER	COMPENSATOR TEST
control lever	
position degree : 94.0	SETTING
position acgive . Atto	OW 1 AITO

M03

Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 13.00 : +- 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 800 : 12.50 : ← 0.05
Pressure hPa rack travel mm Tolerance mm	: 700 : 11.60 : +- 0.10
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm	: 1200
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 1200 : 500
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1200 : 500 : 263.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 1200 : 500 : 263.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1200 : 500 : 263.0 : + 3.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm	: 1200 : 500 : 263.0 : + 3.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 1200 : 500 : 263.0 : + 3.0 : + 6.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1200 : 500 : 263.0 : + 3.0 : + 6.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1200 : 500 : 263.0 : + 3.0 : + 6.0 : 550 : 213.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Tolerance cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance	: 1200 : 500 : 263.0 : + 3.0 : + 6.0 : - 550 : 213.0 : + 1.0 : + 4.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Tolerance cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 1200 : 500 : 263.0 : + 3.0 : + 6.0 : - 550 : 213.0 : + 1.0 : + 4.0

BREAKAWAY

Rack travel in mm : 12.00
Rated speed rpm : 940
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 215.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm : 400 4.75 rack travel mm : Tolerance mm : **←** 0.20 Del. quantity cm3/1000 strokes : 26.0 Tolerance cm3/1000 strokes : \leftarrow 3.0 Check tolerance cm3/1000s. : +- 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 22.08.95

Test oil

: ISO 4113

Combination No. : 0 402 746 931

Injection pump

Pump designation : PES6P120A320RS7236

EP type number

: 0 412 726 848

Governor

Governer design. : RQV275...1000PA1001

: -2

Governer no.

: 0 421 813 989

Cust. part No. : CCEP5128A 66-194

Customer-spec. information

Customer : RVI

Motor

: MIDR 063540 N/3

Power KW : 283.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.2

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 2 417 413 071

Inlet press. bar :

2.5

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

bar

208.5

Tolerance bar

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter :

3.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 : + - 0.05Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm: 19.50

Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

: ← 0.30

Check

Tolerance

tolerance "NW

: +- 0.50

Start of delivery mark

Barrel no.

1

BASIC SETTING

Rated speed rpm :

600

Rack travel in mm: -7.25

: ← 0.30 Tolerance mm

Del. quantity

cm3/1000 strokes : 74.0

Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 1190 Rack travel in mm : 13.20
Check tolerance cm3/1000s. : + 4.0	Tolerance mm : +- 1.30
Spreed	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes : 4.0	Rated speed rpm : 600 Aneroid pressure hPa : 1000
Check tolerance cm3/1000s. : 7.0	Del. quantity cm3/1000 strokes : 290.0 Tolerance
Rated speed rpm : 600	+ cm3/1000 strokes : + 2.0 + Check tolerance
Rack travel in mm: 13.35 Tolerance mm: + 0.05	+ cm3/1000s. : + 5.0 + Spreed + Tolerance + cm3/1000 strokes : 8.0
Del. quantity cm3/1000 strokes : 290.0	Check tolerance : 12.0
Tolerance cm3/1000 strokes : + 2.0	CONTROL LEVER
Check tolerance cm3/1000s. : +- 5.0	control lever position degree : 301.0
Spreed Tolerance cm3/1000 strokes : 8.0	tolerance degree : + 4.0 RATED SPEED
Check tolerance cm3/1000s. : 12.0	rack travel mm : -1.00 Rated speed rpm : 1070 Tolerance 1/min : + 5
Rated speed rpm : 300 Rack travel in mm : -8.20 Tolerance mm : +- 0.20	rack travel mm : -9.30 Rated speed rpm : 1205 Tolerance 1/min : + 15
Del. quantity cm3/1000 strokes : 31.0 Tolerance cm3/1000 strokes : + 2.5	rack travel mm : -12.85 Tolerance mm : + 0.55 Rated speed rpm : 1350
Check tolerance cm3/1000s. : +- 5.0 Spreed	<u> </u>
Tolerance cm3/1000 strokes : 6.0 Check tolerance	LOW IDLE
cm3/1000s. : 10.0	control lever position degree : 247.0 tolerance degree : + 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Testing:
GUIDE SLEEVE POSITION	Rated speed rpm : 300 rack travel mm : -8.20 Tolerance mm : + 0.10

Rated speed rpm CRT mm max. Rated speed rpm TORQUE CONTROL Rated speed rpm Rated speed rpm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: < -6.80 : 365 : 600 : 1000 : + 0.10	Aneroid pressure hPa : 1000 Rated speed rpm : 1000 Del. quantity cm3/1000 strokes : 270.0 Tolerance cm3/1000strokes : + 4.0 Check tolerance cm3/1000s. : + 7.0 Aneroid pressure hPa : - Rated speed rpm : 600 Del. quantity cm3/1000 strokes : 159.0 Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 8.0 Spreed Tolerance cm3/1000strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000strokes : 167.0 Tolerance cm3/1000 strokes : 167.0 Tolerance cm3/1000 strokes : 167.0 Tolerance cm3/1000 strokes : + 1.0
ANEROID/ALTITUDE COMPENSATOR TEST		+ cm3/1000s. : +- 8.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0
Rated speed rpm Pressure hPa	: 500 : 1000	Aneroid pressure hPa : - Rated speed rpm : 500
MEASUREMENT		+ Del. quantity + cm3/1000 strokes : 167.0
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: -3.80	Tolerance : + 1.0 check tolerance cm3/1000s. : + 4.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm	: 240 : −2.60 : ← 0.20 : 480 : −0.75	BREAKAWAY Rack travel in mm: -1.00 Rated speed rpm: 1070 Tolerance 1/min: + 5
START CUT-OUT		STARTING FUEL DELIVERY
Rated speed rpm Rated speed rpm Check	: < 195	Del. quantity cm3/1000 strokes : 160.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance
speed 1/min Check speed 1/min		- cm3/1000s. : + 14.0
FUEL DELIVERY CHA	RACTERISTICS	LOW IDLE
		+ Rated speed rpm : 300

rack travel mm : -8.20 Tolerance mm : +- 0.20 Del. quantity cm3/1000 strokes : 31.0 Tolerance cm3/1000 strokes : +-2.5 Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 28.08.95 Test cil : ISO 4113

Combination No. : 0 403 244 054

Injection pump

Pump designation : PES4MW100/720RS1525 EP type number : 0 413 204 022

Governor

Governer design. : RQV300...1300MW150

Governer no. : 0 420 083 334

Cust. part No. : 0260747002

Customer—spec. information Customer : MB-NFZ Motor : OM364LA Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm: 20.00 Tolerance mm: + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 13.90 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 126.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. : +-

cm3/1000s. : + 3.0

Spreed Tolerance

7/4000

cm3/1000 strokes :

3.5

Check tolerance	1	
cm3/1000s.	: 6.0	Rack travel in mm : 10.00
(111)/10003.	. o.o I	Tolerance mm : +- 2.70
Rated speed rpm	: 300	TOCCIONICE INN
mater opera i pii	1	
Rack travel in mm	1: 3.90	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance mm	: + 0.30 +	
Del. quantity	+	Rated speed rpm : 1300
cm3/1000 strokes	: 12.0	Aneroid pressure
Tolerance	†	hPa : 1200
cm3/1000 strokes	: + 2.0 †	Del. quantity
Check tolerance cm3/1000s.	: + 4.5	cm3/1000 strokes : 126.0 Tolerance
Spreed	· +- 4.3	cm3/1000 strokes : +- 1.0
Tolerance	Ţ	Check tolerance
cm3/1000 strokes	: 3.5	cm3/1000s. : +- 3.0
Check tolerance		Spreed
cm3/1000s.		Tolerance
	}	cm3/1000 strokes : 3.5
	+	Check tolerance
(B) SETTING OF IN	JECTION PUMP +	cm3/1000s. : 6.0
WITH GOVERNOR	+	
	†	
CHARE OF CENT TOWN		CONTROL LEVER
GUIDE SLEEVE TRAV	1	CONTROL LEVER
Rated speed rpm	: 300	control lever
guide sleeve	. 300	position degree : 105.0
travel mm	: 0.91	posteroit degree . Tosto
Tolerance mm	: + 0.20	RATED SPEED
	+	
Rated speed rpm	: 1354	rack travel mm : 12.90
guide sleeve	+	Rated speed rpm : 1345
travel mm	: 7.15 +	Tolerance 1/min : +- 5
Tolerance mm	: + 0.15	
5 () () () ()	1170	rack travel mm : 4.00
Rated speed rpm	: 1130	Rated speed rpm : 1475 Tolerance 1/min : +- 15
guide sleeve travel mm	: 5.40	Tolerance 1/min : + 15
Tolerance mm	: + 0.25	rack travel mm : 0.50
TOTEL GITCE IMI	I	Tolerance mm : + 0.50
Rated speed rpm	: 780	Rated speed rpm : 1550
guide sleeve	1	······································
travel mm	: 3.72	
Tolerance mm	: + 0.25 +	
	+	LOW IDLE
Rated speed rpm	: 1679 +	
guide sleeve	+	
travel mm		control lever
Tolerance mm	: + 0.25	position degree : 66.0
Pated speed non	: 1780	Testing:
Rated speed rpm guide sleeve	. 1100	resumy.
travel mm	: 13.50	Rated speed rpm : 300
Tolerance mm		rack travel mm : 3.90
	<u> </u>	rack travel mm : 3.90 Tolerance mm : + 0.10
GUIDE SLEEVE POSIT	LION	Rated speed rpm : 200
Rated speed rpm	: 1475	CRT mm min. :> 4.50

		† Tolerance
TORQUE CONTROL		} cm3/1000 strokes : +- 1.5 + Check tolerance
lated anded and	. 1700	+ cm3/1000s. : +- 4.0
ted speed rpm ck travel mm	: 1300 : 13.90	+ Spreed + Tolerance
lerance mm		- cm3/1000 strokes : 6.0
ster drive min		+ Check tolerance
ated speed rpm	: 750	+ cm3/1000s. : 9.0
ack travel mm		1
olerance mm	: ← 0.10	+ Aneroid pressure
		† hPa :
		Rated speed rpm : 500
VEROID/ALTITUDE		† Del. quantity
COMPENSATOR TEST		+ cm3/1000 strokes : 67.0
		+ Tolerance
ETTING		+ cm3/1000 strokes : + 1.0 + Check tolerance
: I IIVO		+ cm3/1000s. : + 3.0
ited speed rpm	: 500	T (110) 10003. : 7 3.0
ressure hPa	: 1200	
ack travel mm		BREAKAWAY
olerance mm	: + 0.05	
	- · - ·	+
EASUREMENT		Rack travel in mm: 12.90
		Rated speed rpm : 1345
essure hPa	: -	Tolerance 1/min : + 5
ted speed rpm	: 500	+
lerance mm	: + 0.10	†
ted speed rpm	: 500	STARTING FUEL DELIVERY
		+
essure hPa	: 600	+ Rated speed rpm : 100
ick travel mm	: 2.00	+ Del. quantity
lerance mm	: + 0.10	cm3/1000 strokes : 150.0
scooling PDs	. 350	Tolerance cm3/1000 strokes : +- 5.0
essure hPa ck travel mm	: 350 : 0.50	t cm3/1000 strokes : + 5.0 + Check tolerance
ck travel mm	: 0.50 : + 0.10	+ cm3/1000s. : + 8.0
relative iiii)	0.10	- CIRD/ 10000. 1 = 0.0
ART CUT-OUT		- ‡
		I OU TO E
and ones are	. \ 100	+ LOW IDLE
	:> 100	
	: > 100 : < 220	T Rated speed rom . 300
ated speed rpm ated speed rpm		Rated speed rpm : 300
ted speed rpm eck	: < 220	rack travel mm : 3.90
eck eed 1/min		rack travel mm : 3.90 Tolerance mm : + 0.30
eck eck ed 1/min eck	: < 220 : > 80	rack travel mm : 3.90 Tolerance mm : + 0.30 Del. quantity
eck eck ed 1/min eck	: < 220	rack travel mm : 3.90 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 12.0
eck eck ed 1/min eck	: < 220 : > 80	rack travel mm : 3.90 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 12.0 Tolerance
ted speed rpm eck eed 1/min eck eed 1/min	: < 220 : > 80 : < 260	rack travel mm : 3.90 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : + 2.0
ted speed rpm eck eed 1/min eck eed 1/min	: < 220 : > 80 : < 260	rack travel mm : 3.90 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 12.0 Tolerance
ted speed rpm eck eed 1/min eck eed 1/min EL DELIVERY CHA	: < 220 : > 80 : < 260	rack travel mm : 3.90 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5
eted speed rpm meck meed 1/min meck meed 1/min med 1/min EL DELIVERY CHA	: < 220 : > 80 : < 260	rack travel mm : 3.90 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance
	: < 220 : > 80 : < 260 ARACTERISTICS	rack travel mm : 3.90 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed
ted speed rpm eck eed 1/min eck eed 1/min EL DELIVERY CHA	: < 220 : > 80 : < 260 ARACTERISTICS : 1200	rack travel mm : 3.90 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 23.08.95 Test oil : ISO 4113

Combination No. : 0 403 246 050

Injection pump

Pump designation : PES6MW100/720RS1527 EP type number : 0 413 206 026

Governor

Governer design. : RQV300...1300MW132

: -16

Governer no. : 0 420 083 335

Cust. part No. : 0260749302

Customer—spec. information
Customer : MB-NFZ
Motor : 0M366LA
Power KW : 155.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.00Tolerance mm : \leftarrow 1.00

Firing order : 1-5-3-6-2-

. 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : ← 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.30

Rack travel in mm: 13.30 Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 118.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

		+ Rated speed rpm	1480
Check tolerance cm3/1000s.	: 6.0	Rack travel in mm	: 10.00
Rated speed rpm	: 300	Total disca lini	
Rack travel in mm Tolerance mm		FULL LOAD DELIVERY	AT FULL LO
Del. quantity cm3/1000 strokes		Rated speed rpm Aneroid pressure	: 1300
Tolerance cm3/1000 strokes		+ hPa + Del. quantity	: 1000
Check tolerance cm3/1000s.	: +- 4.5	cm3/1000 strokes	: 118.0
Spreed	. +- 4.5	cm3/1000 strokes	: + 1.0
Tolerance cm3/1000 strokes	: 3.5	+ Check tolerance + cm3/1000s.	: +- 3.0
Check tolerance cm3/1000S.	: 5.5	Spreed Tolerance	
		+ cm3/1000 strokes + Check tolerance	
(B) SETTING OF INJ WITH GOVERNOR	ECTION PUMP	- cm3/1000s.	: 6.0
GUIDE SLEEVE TRAVE	L	CONTROL LEVER	P
Rated speed rpm guide sleeve	: 300	control lever	· 119 በ
travel mm	: 1.01 : + 0.20	tolerance degree	
		T RATED SPEED	
Rated speed rpm guide sleeve		rack travel mm	
travel mm Tolerance mm	: 6.70 : + 0.15	Rated speed rpm Tolerance 1/min	: 1345 : + 5
Rated speed rpm quide sleeve	: 1090	rack travel mm Rated speed rpm	: 4.00 : 1470
travel mm	: 4.70	Tolerance 1/min	
Tolerance mm	: + 0.25		: 0.50
Rated speed rpm guide sleeve	: 690	Tolerance mm Rated speed rpm	: + 0.50 : 1550
travel mm Tolerance mm	: 2.97 : + 0.25	# .	
Rated speed rpm guide sleeve	: 1683	LOW IDLE	
travel mm	: 12.00		
	: +- 0.25 : 1780	control leverposition degreetolerance degree	: 74.0 : +- 4.0
guide sleeve travel mm	: 13.50	Testing:	. ,,,
	: +- 0.50	+	: 300
GUIDE SLEEVE POSIT	ION	+ rack travel mm	: 3.80 : + 0.10
		Τ	

FULL LOAD STOP

Rated speed rpm CRT mm min. Rated speed rpm rack travel mm	: > 4.10 : 490	Aneroid pressure hPa : 1000 Rated speed rpm : 600 Del. quantity cm3/1000 strokes : 119.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance
TORQUE CONTROL	4700	+ cm3/1000s. : + 4.0 + Spreed
Rated speed rpm rack travel mm Tolerance mm	: 1300 : 13.30 : + 0.05	Tolerance cm3/1000 strokes : 6.0 Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 600 : 13.30	- cm3/1000s. : 9.0 - Aneroid pressure - hPa : - Rated speed rpm : 500
ANEROID/ALTITUDE COMPENSATOR TEST		Del. quantity cm3/1000 strokes : 48.0 Tolerance cm3/1000 strokes : + 1.0
SETTING		Check tolerance cm3/1000s. : +- 3.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 13.30	BREAKAWAY
MEASUREMENT		+ Rack travel in mm : 12.30 + Rated speed rpm : 1345 + Tolerance 1/min : +- 5
Pressure hPa Rated speed rpm Tolerance mm	: - : 500 : ← 0.10	<u> </u>
Rated speed rpm	: 500	+ STARTING FUEL DELIVERY + Rated speed rpm : 100
Pressure hPa rack travel mm Tolerance mm	: 3.00	Del. quantity cm3/1000 strokes : 150.0 Tolerance cm3/1000 strokes : + 5.0
Pressure hPa rack travel mm Tolerance mm	: 1.00	Check tolerance cm3/1000s. : + 8.0
START CUT-OUT		LOW IDLE
Rated speed rpm Rated speed rpm	: > 100 : < 200	Rated speed rpm : 300 + rack travel mm : 3.80
Check speed 1/min Check	: > 80	Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 12.0
speed 1/min	: < 220	Tolerance : + 2.0 Check tolerance
FUEL DELIVERY CHA	RACTERISTICS	cm3/1000s. : + 4.5 Spreed

Tolerance cm3/1000 strokes : Check tolerance cm3/1000s. : 3.5

5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 25.08.95 : ISO 4113 Test oil

Combination No. : 0 403 246 052

Injection pump

Pump designation : PES6MW100/720RS1527

EP type number : 0 413 206 026

Governor

Governer design. : RQV300...1300MW132

: -19

Governer no. : 0 420 083 338

Cust. part No. : 0260749202

Customer-spec. information Customer : MB-NFZ : 0M366LA Motor Power KW : 155.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar :

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar : **←** 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0 x inside diameter: 3.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0

Prestroke mm 4.55 Tolerance mm : + - 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 20.00 Tolerance mm : + 1.00

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300 : + 0.50

Tolerance Check

tolerance 'NW : + 0.75

BASIC SETTING

Rated speed rpm 1300

Rack travel in mm: 13.30 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 118.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +-3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

4	- Rated speed rpm : 1480
Check tolerance	•
cm3/1000s. : 6.0	- Rack travel in mm : 10.00 - Tolerance mm : +- 2.70
Rated speed rpm : 300	
+	
Rack travel in mm: 3.80 + Tolerance mm: + 0.20 +	- FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity	Rated speed rpm : 1300
cm3/1000 strokes : 12.0	- Aneroid pressure
Tolerance + 2.0 +	hPa : 1000 Del. quantity
Check tolerance	cm3/1000 strokes : 118.0
cm3/1000s. : + 4.5	Tolerance
Spreed + Tolerance +	cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes : 3.5	cm3/1000s. : +- 3.0
Check tolerance	Spreed
cm3/1000s. : 5.5	Tolerance cm3/1000 strokes : 3.5
Ţ	Check tolerance
(B) SETTING OF INJECTION PUMP	cm3/1000s. : 6.0
WITH GOVERNOR	
GUIDE SLEEVE TRAVEL	CONTROL LEVER
Rated speed rpm : 300	control lever
guide sleeve + travel mm : 1.01 +	position degree : 119.0
travel mm : 1.01 + Tolerance mm : + 0.20 +	tolerance degree : +- 4.0
+	RATED SPEED
Rated speed rpm : 1353	
guide sleeve + travel mm : 6.70 +	rack travel mm : 12.30 Rated speed rpm : 1345
Tolerance mm : + 0.15	Tolerance 1/min : +- 5
Rated speed rpm : 1090	rack travel mm : 4.00
Rated speed rpm : 1090 + quide sleeve +	rack travel mm : 4.00 Rated speed rpm : 1470
travel mm : 4.70	Tolerance 1/min : + 15
Tolerance mm : + 0.25	rack travel mm : 0.50
Rated speed rpm : 690	Tolerance mm : 0.50
guide sleeve +	Rated speed rpm : 1550
travel mm : 2.97 Tolerance mm : + 0.25	
Tolerance mm : + 0.25	
Rated speed rpm : 1683	LOW IDLE
guide sleeve + travel mm : 12.00 +	
travel mm : 12.00 + Tolerance mm : + 0.25 +	control lever
+	position degree : 74.0
Rated speed rpm : 1780 +	tolerance degree : +- 4.0
guide sleeve + travel mm : 13.50 +	Testing:
Tolerance mm : + 0.50	_
+	Rated speed rpm : 300
GUIDE SLEEVE POSITION	rack travel mm : 3.80 Tolerance mm : +- 0.10
COINT OFFICE : ODIIIOIS	

Rated speed rpm		+ Aneroid pressure + hPa : 1000
CRT mm min.		Rated speed rpm : 600 Del. quantity
Rated speed rpm rack travel mm	: 490 : 2.00	t cm3/1000 strokes : 119.0 Tolerance
		cm3/1000 strokes : + 1.5 Check tolerance
TORQUE CONTROL		+ cm3/1000s. : +- 4.0 + Spreed
Rated speed rpm rack travel mm Tolerance mm	: 13.30	Tolerance cm3/1000 strokes : 6.0 Check tolerance
Rated speed rpm		cm3/1000s. : 9.0
rack travel mm Tolerance mm	: 13.30	Aneroid pressure hPa : - Rated speed rpm : 500
ANEROID/ALTITUDE COMPENSATOR TEST		Del. quantity cm3/1000 strokes : 48.0 Tolerance
COMPLINATION TEST		cm3/1000 strokes : +- 1.0 + Check tolerance
SETTING		+ cm3/1000s. : +- 3.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1000 : 13.30	BREAKAWAY
MEASUREMENT		Rack travel in mm: 12.30 Rated speed rpm: 1345 Tolerance 1/min: + 5
Pressure hPa Rated speed rpm Tolerance mm	: - : 500 : +- 0.10	
Rated speed rpm		STARTING FUEL DELIVERY
Pressure hPa		Rated speed rpm : 100 Del. quantity
rack travel mm Tolerance mm		cm3/1000 strokes : 150.0 + Tolerance + cm3/1000 strokes : + 5.0
Pressure hPa rack travel mm Tolerance mm	: 300 : 1.00 : + 0.10	Check tolerance cm3/1000s. : + 8.0
		-
START CUT-OUT		LOW IDLE
Rated speed rpm Rated speed rpm		Rated speed rpm : 300 rack travel mm : 3.80
Check speed 1/min Check	: > 80	Tolerance mm : + 0.20 + Del. quantity + cm3/1000 strokes : 12.0
speed 1/min	: < 220	Tolerance : + 2.0
FUEL DELIVERY CHA	RACTERISTICS	Check tolerance cm3/1000s. : + 4.5 Spreed

Tolerance cm3/1000 strokes : Check tolerance cm3/1000s. : 3.5

5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 25.08.95 Test oil : ISO 4113

Combination No. : 0 403 246 053

Injection pump

Pump designation : PES6MW100/720RS1527

EP type number : 0 413 206 026

Governor

Governer design. : RQV300...1300MW132

: -20

Governer no. : 0 420 083 339

Cust. part No. : 0260749402

Customer—spec. information Customer : MB-NFZ Motor : OM366LA Power KW : 177.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 20.00 Tolerance mm: + 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance "NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 14.40
Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 130.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : \leftarrow 4.0

Spreed Tolerance

cm3/1000 strokes : 4.0

	+ Rated speed rpm : 1480
Check tolerance	Added Speed Ipin . 1400
cm3/1000s. : 7.5	Rack travel in mm: 10.00
Rated speed rpm : 300	+ Tolerance mm : +- 2.70
Rated speed (pill : 500	
Rack travel in mm: 4.00	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance mm : + 0.30	+
Del. quantity cm3/1000 strokes : 12.0	+ Rated speed rpm : 1300 + Aneroid pressure
Tolerance	hPa : 1000
cm3/1000 strokes : +- 2.0	+ Del. quantity
Check tolerance	+ cm3/1000 strokes : 130.0
cm3/1000s. : +- 4.5 Spreed	+ Tolerance + cm3/1000 strokes : +- 1.0
Tolerance	Check tolerance
cm3/1000 strokes : 3.5	+ cm3/1000s. : +- 4.0
Check tolerance	+ Spreed
cm3/1000s. : 5.5	Tolerance + cm3/1000 strokes : 4.0
	Check tolerance
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	+
GUIDE SLEEVE TRAVEL	CONTROL LEVER
- · · ·	+
Rated speed rpm : 300	the control lever position degree : 120.0
guide sleeve travel mm : 1.01	+ position degree : 120.0 + tolerance degree : +- 4.0
Tolerance mm : + 0.20	+
	+ RATED SPEED
Rated speed rpm : 1354 guide sleeve	+ rack travel mm : 13.40
travel mm : 6.71	+ Rated speed rpm : 1345
Tolerance mm : + 0.15	+ Tolerance 1/min : + 5
2000	1 20
Rated speed rpm : 1090 guide sleeve	+ rack travel mm : 4.00 + Rated speed rpm : 1480
travel mm : 4.70	T Nateu speed Ipin . 1400
Tolerance mm : +- 0.25	rack travel mm : 0.50
~	+ Tolerance mm : + 0.50
Rated speed rpm : 690 guide sleeve	Rated speed rpm : 1550
travel mm : 2.97	<u> </u>
Tolerance mm : + 0.25	
D. A. J. a. a. a. J. a. a	+ LOW IDLE
Rated speed rpm : 1683 guide sleeve	Ī
travel mm : 12.00	control lever
Tolerance mm : + 0.25	position degree : 74.0
Dated award was a 4700	tolerance degree : + 4.0
Rated speed rpm : 1780 guide sleeve	Testing:
travel mm : 13.50	+
Tolerance mm : + 0.50	Rated speed rpm : 300
	rack travel mm : 4.00
GUIDE SLEEVE POSITION	
COINT OFFERE LOOTITUIA	Rated speed rpm : 200

CRT mm min.	: > 4.50	Del. quantity cm3/1000 strokes : 132.0 Tolerance
TORQUE CONTROL		
Rated speed rpm rack travel mm		cm3/1000s. : +- 5.0 Spreed Tolerance
Tolerance mm		cm3/1000 strokes : 6.0 Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 750 : 14.40	cm3/1000s. : 9.0
roterance mm	: + 0.10	+ Aneroid pressure + hPa : -
ANEROID/ALTITUDE COMPENSATOR TEST		Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 43.0
CONFESSORION TEST		Tolerance + cm3/1000 strokes : + 1.0
SETTING		Check tolerance : + 3.0
Rated speed rpm Pressure hPa	: 1000	
rack travel mm Tolerance mm	: 14.40 : + 0.10	BREAKAWAY
MEASUREMENT		+ Rack travel in mm: 13.40 + Rated speed rpm: 1345
Pressure hPa Rated speed rpm	: - : 500	Tolerance 1/min : + 5
Tolerance mm		Ŧ
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa rack travel mm		Rated speed rpm : 100 Del. quantity
Tolerance mm		- cm3/1000 strokes : 160.0 - Tolerance
Pressure hPa rack travel mm	: 300 : 1.50	cm3/1000 strokes : + 5.0 Check tolerance
Tolerance mm	: + 0.10	cm3/1000s. : + 8.0
START CUT-OUT		
Rated speed rpm Rated speed rpm		LOW IDLE
Check		Rated speed rpm : 300 rack travel mm : 4.00
speed 1/min Check	: > 80	Tolerance mm : +- 0.30 Del. quantity
speed 1/min	: < 220	cm3/1000 strokes : 12.0 Tolerance
FUEL DELIVERY CHA	RACTERISTICS	
Aneroid pressure	11/10 LI(10 100	cm3/1000s. : +- 4.5 Spreed
hPa	: 1000	+ Tolerance
Rated speed rpm	: 750	+ cm3/1000 strokes : 3.5

Check tolerance cm3/1000s.	:	5.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.08.95 Test oil : ISO 4113

Combination No. : 0 403 274 007

Injection pump

Pump designation : PES4MW100/720RS1524

: 0 413 204 021 EP type number

Governor

Governer design. : RSV350...1200MWDA356

: -2

: 0 420 085 273 Governer no.

Cust. part No. : 0260748302

Customer-spec. information : MB-NFZ Customer : 0M364LA Motor Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar : + 1.5 Tolerance bar

: 1 680 750 089 Test Lines

Outside diameter : 8.0 x inside diameter : 3.0 x Length mm 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

4.55 Prestroke mm : + 0.05Tolerance mm Check

: + - 0.10tolerance mm

20.00 Rack travel in mm : Tolerance mm : +- 1.00

: 1-3-4-2 Firing order

: 0-90-180-270 Phasing

Tolerance : ← 0.50 Check

: + 0.75tolerance "NW

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 11.15 Tolerance mm : **←** 0.05

Del. quantity

cm3/1000 strokes : 86.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

3.0 cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes :

Check tolerance cm3/1000s. : 6.0 Rated speed rpm : 350 Rack travel in mm : 4.00 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5	tolerance degree : + 4.0 RATED SPEED rack travel mm : 10.15 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 1.00 Tolerance mm : + 0.70 Rated speed rpm : 1400
Spreed Tolerance cm3/1000 strokes: 3.5 Check tolerance cm3/1000s.: 5.5 (B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE Setting point w/out bumper spring Rated speed rpm : 350 rack travel mm : 4.00 Testing:
WITH GOVERNOR	Rated speed rpm : 100
GUIDE SLEEVE POSITION	CRT mm min. : > 19.50
Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 4.50	TORQUE CONTROL Rated speed rpm : 1200 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 750
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 11.15 Tolerance mm : + 0.10
Rated speed rpm : 1200 Aneroid pressure hPa : 1400 Del. quantity	ANEROID/ALTITUDE COMPENSATOR TEST
cm3/1000 strokes : 86.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	SETTING Rated speed rpm : 500 Pressure hPa : 1400
cm3/1000s. : + 3.0 Spreed Tolerance	rack travel mm : 11.15 Tolerance mm : + 0.10
cm3/1000 strokes : 3.5 Check tolerance cm3/1000S. : 6.0	MEASUREMENT Pressure hPa : -
	Rated speed rpm : 500 Tolerance mm : + 0.10
CONTROL LEVER	Rated speed rpm : 500
control lever position degree : 103.0 +	Pressure hPa : 250 rack travel mm : 0.25

Tolerance mm	: +- 0.10
FUEL DELIVERY CHA	IRACTERISTICS
Aneroid pressure hPa	: 1400
Rated speed rpm	: 750
Del. quantity	. ,,,,
cm3/1000 strokes	: 80.0
Tolerance	. 4 5
cm3/1000 strokes	: +- 1.5
Check tolerance cm3/1000s.	: +- 4.0
Spreed	: 4.0
Tolerance	
cm3/1000 strokes	: 5.0
Check tolerance	_
cm3/1000s.	: 7.0
مسريممست لدفاء الما	
Aneroid pressure hPa	
Rated speed rpm	500
Del. quantity	. 500
cm3/1000 strokes	: 71.0
Tolerance	-
cm3/1000 strokes	: +- 1.0
Check tolerance	
cm3/1000s.	: - 3.0
BREAKAWAY	
Rack travel in mm	: 10.15
Rated speed rpm	: 1245
Tolerance 1/min	: + 5
OTABITANC CIVEL DEL	TIPOV
STARTING FUEL DEL	TVEKY
Rated speed rpm	: 100
Del. quantity	405.0
cm3/1000 strokes	: 125.0
Tolerance cm3/1000 strokes	: ← 5.0
Check tolerance	: - 5.0
cm3/1000s.	: 8.0
unor robou.	
LOW IDLE	
	700
Rated speed rpm	: 350
rack travel mm Tolerance mm	: 4.00 : + 0.30
oterance mm	: U.SU

Del. quantity		
cm3/1000 strokes	:	12.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 14.08.95

Test oil

: ISO 4113

Combination No. : 0 403 276 013

Injection pump

Pump designation : PES6MW100/720RS1527

EP type number : 0 413 206 026

Governor

Governer design. : RSV350...1200MW0A390

Governer no.

: 0 420 085 276

Cust. part No. : 0260749002

Customer-spec. information

Customer : MB-NFZ

Motor

: OM366LA

Power KW

: 155.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

40

Tolerance °C

: +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

Tolerance bar

: 208.5 : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 31.0

Tolerance bar : + 1.0

Prestroke mm

4.55

Tolerance nm

: + 0.05

Check

tolerance mm

: + 0.10

Rack travel in mm: 20.00

Tolerance mm : +- 1.00

Firing order

: 1-5-3-6-2-

Phasing

: 0-60-120-180-240

: -300

Tolerance

Check

tolerance "NW

: **←** 0.75

: + 0.50

BASIC SETTING

Rated speed rpm :

1200

Rack travel in mm: 13.30

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes :

118.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.

: +-3.0

Spreed

Tolerance

cm3/1000 strokes :

Charle talanana	. †
Check tolerance cm3/1000S. : 6.0	t control lever
CHD/10003 O.U	<pre>position degree : 108.0 tolerance degree : + 4.0</pre>
Rated speed rpm : 350	T total ance degree . +- 4.0
nated speed (pill : 350	T RATED SPEED
Rack travel in mm : 3.90	THATED OF EED
Tolerance mm : + 0.30	rack travel mm : 1.00
Del. quantity	+ Tolerance mm : +- 0.70
cm3/1000 strokes : 12.0	Rated speed rpm : 1450
Tolerance	+
cm3/1000 strokes : +- 2.0	+ rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1375
cm3/1000s : +- 4.5	+
Spreed	+ rack travel mm : 12.30
Tolerance	+ Rated speed rpm : 1245
cm3/1000 strokes : 3.5	† Tolerance 1/min : + 5
Check tolerance	†
cm3/1000s. : 5.5	+ ASSEMBLY GOVERNOR SETTING
	13/0
(D) CETTING OF THE CTTON DUMB	+ Rated speed rpm : 1240
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 12.30
WITH GOVERNOR	Rated speed rpm : 1366
	+ Tolerance 1/min : + 4
	rack travel mm : 4.00
GUIDE SLEEVE POSITION	Tack travel man . 4.50
00106 06556 100111011	Rated speed rpm : 1241
Rated speed rpm : 800	+ rack travel mm : 12.30
The second secon	+
Rack travel in mm : 0.65	Rated speed rpm : 1367
Tolerance mm : + 0.35	+ Tolerance 1/min : +- 4
	† rack travel mm : 4.00
governor spring	+
pre-tension	+ Rated speed rpm : 1242
click setting x : 4.50	+ rack travel mm : 12.30
	77/9
FIRE LOAD BELTIERY AT FULL LOAD CTOD	+ Rated speed rpm : 1368
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance 1/min : +- 4 rack travel mm : 4.00
Rated speed rpm : 1200	rack travet mm : 4.00
Rated speed rpm : 1200 Aneroid pressure	Rated speed rpm : 1243
hPa : 1300	rack travel mm : 12.30
Del. quantity	Tack craves is 12.55
cm3/1000 strokes : 118.0	Rated speed rpm : 1369
Tolerance	+ Tolerance 1/min : +- 4
cm3/1000 strokes : +- 1.0	rack travel mm : 4.00
Check tolerance	+
cm3/1000s. : +- 3.0	+ Rated speed rpm : 1244
Spre/at	+ rack travel mm : 12.30
Tolerance	+
cm3/1000 strokes : 3.5	+ Rated speed rpm : 1370
Check tolerance	+ Tolerance 1/min : +- 4
cm3/1000s. : 6.0	rack travel mm : 4.00
	Rated speed rpm : 1245
	+ Rated speed rpm : 1245 + rack travel mm : 12.30
CONTROL LEVER	T TOOK CLOVE CHANG . 12.30
COLATIVOE CEATIV	Rated speed rpm : 1371
	+ Tolerance 1/min : + 4
	, issuance rimin to T

rack travel mm	: 4.00	‡
LOW IDLE		- † FUEL DELIVERY CHARACTERISTICS
	out bumper spring : 350 : 3.98	Aneroid pressure hPa : 1300 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 117.0
Testing:		Tolerance cm3/1000 strokes : + 1.5
rack travel mm Rated speed rpm Tolerance 1/min	: 430	Check tolerance cm3/1000S. : + 4.0 Spreed Tolerance
Rated speed rpm	: 100	cm3/1000 strokes : 5.0 Check tolerance
CRT mm min.	: > 19.00	cm3/1000s. : 7.0
TORQUE CONTROL		Aneroid pressure hPa : - Rated speed rpm : 500
Rated speed rpm	• 1200	Del. quantity cm3/1000 strokes : 48.0
rack travel mm Tolerance mm	: 13.30	Tolerance cm3/1000 strokes : +- 1.0
Rated speed rpm rack travel mm Tolerance mm	: 13.30	+ Check tolerance + cm3/1000s. : +- 3.0 +
ANEROID/ALTITUDE		STARTING FUEL DELIVERY
COMPENSATOR TEST SETTING		Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 145.0
Rated speed rpm		+ Tolerance + cm3/1000 strokes : +- 5.0
Pressure hPa rack travel mm Tolerance mm	: 1300 : 13.30 : +- 0.10	Check tolerance cm3/1000s. : +- 8.0
MEASUREMENT		Ŧ
Pressure hPa Rated speed rpm Tolerance mm	: - : 500 : + 0.10	LOW IDLE Rated speed rpm : 350
Rated speed rpm		rack travel mm : 3.90 Tolerance mm : + 0.30
Pressure hPa rack travel mm	: 600 : 3.00	+ Del. quantity + cm3/1000 strokes : 12.0 + Tolerance
Tolerance mm	: +- 0.10	cm3/1000 strokes : + 2.0 Check tolerance
Pressure hPa rack travel mm Tolerance mm	: 300 : 1.20 : +- 0.10	cm3/1000s. : +- 4.5 - Spreed - Tolerance
	- · · · -	cm3/1000 strokes : 3.5

Check tolerance cm3/1000S.	:	5.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.08.95 Edition Test oil : ISO 4113

Combination No. : 0 403 446 158

Injection pump

Pump designation : PES6MW100/720RS1131 : 0 413 406 123 EP type number

Governor

Governer design. : RQV300...1300MW50-1 Governer no. : 0 420 083 089

Cust. part No. :

Customer-spec. information Customer : MB-NFZ : OM 366 LA Motor Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : **←** 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar 1.5 Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.8

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : rest pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75 : +- 0.05 Tolerance mm Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 Tolerance mn: +- 1.50

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50Check

tolerance *NW : + 0.75

BASIC SETTING

: 1300 Rated speed rpm

Rack travel in mm: 12.25 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 97.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s.

: + 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance	<u></u>	Tolerance mm : +- 0.50
cm3/1000s.	: 6.0	GUIDE SLEEVE POSITION
Rated speed rpm	+	Rated speed rpm : 1340
Rack travel in mm Tolerance mm	n: 6.80 +	Rack travel in mm : 16.50
Del. quantity cm3/1000 strokes	+	Tolerance mm : + 1.30
Tolerance cm3/1000 strokes	: + 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s.	: + 4.5	Rated speed rpm : 1300
Spreed Tolerance	‡	Aneroid pressure hPa : 700
cm3/1000 strokes Check tolerance	+	Del. quantity cm3/1000 strokes : 97.5
cm3/1000s.	: 5.5	Tolerance cm3/1000 strokes : + 1.0
(B) SETTING OF IN	NJECTION PUMP	Check tolerance cm3/1000s. : +- 3.0 Spreed
WITH GOVERNOR		Tolerance cm3/1000 strokes : 3.5
GUIDE SLEEVE TRAV	/EL +	Check tolerance cm3/1000s. : 6.0
Rated speed rpm guide sleeve	: 300	
travel mm	: 1.40	CONTROL LEVED
Tolerance mm	: + 0.25	CONTROL LEVER
Rated speed rpm guide sleeve	: 1354	control lever position degree : 118.0
travel mm Tolerance mm	: 8.68 : + 0.25	tolerance degree : + 4.0
Rated speed rpm	: 881	RATED SPEED
guide sleeve	1	rack travel mm : 11.20
travel mm Tolerance mm	: 5.02	Rated speed rpm : 1345
	: + 0.25 +	Tolerance 1/min : + 5
Rated speed rpm	: + 0.25 : 363	Tolerance 1/min : + 5 rack travel mm : 4.00
guide sleeve	: 363	Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1455
	+	Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1455 Tolerance 1/min : + 15
guide sleeve travel mm Tolerance mm	: 363 : 2.05	Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1455 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
guide sleeve travel mm Tolerance mm	: 363 : 2.05 : + 0.25	Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1455 Tolerance 1/min : + 15 rack travel mm : 0.50
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 363 : 2.05 : + 0.25 : 413	Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1455 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 363 : 2.05 : + 0.25 : 413 : 2.44 : + 0.25 : 500	Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1455 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 363 : 2.05 : + 0.25 : 413 : 2.44 : + 0.25 : 500 : 2.99	Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1455 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1550 LOW IDLE
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 363 : 2.05 : + 0.25 : 413 : 2.44 : + 0.25 : 500	Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1455 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1550 LOW IDLE control lever
guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 363 : 2.05 : + 0.25 : 413 : 2.44 : + 0.25 : 500 : 2.99	Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1455 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1550 LOW IDLE

Rated speed rpm : 300 Fuel Delivery Characteristics Fuel Delivery Fuel	Dahad ayard san	700	†
Aneroid pressure	nateu speed rom	. 200 . 4.80	FUEL DELTHEDY CHARACTERISTICS
Aneroid pressure	Tolerance mm	· + 0.00	T FOLL DELIVERS CHARACTERISTICS
Rated speed rpm : 100	TOTOL GITTOC TIME	0.10	Aneroid pressure
Rated speed rpm : 575 DeL quantity cm3/1000 strokes : 84.5	Rated speed rom	: 100	
Del. quantity			
TORQUE CONTROL Rated speed rpm : 1300	CRT mm min.	: > 7.60	
TORQUE CONTROL Cm3/1000 strokes : + 1.5			
Check tolerance cm3/1000S. cm3/1000S. cm3/1000S. cm3/1000S. cm3/1000S. cm3/1000S. cm3/1000S. cm3/1000S. cm3/1000S. cm3/1000S. cm3/1000S. cm3/1000S. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/100OS. cm3/10OS. cm3			
Rated speed rpm : 1300	TORQUE CONTROL		
Tack travel mm			
Rated speed rpm : 575 rack travel mm : 12.25 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : + 0.10 MEASUREMENT Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.05 Rated speed rpm : 500 Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 225 rack travel mm : 0.40 Tolerance mm : + 0.10 Pressure hPa : 225 Rated speed rpm : 500 STARTING FUEL DELIVERY Pressure hPa : 170 rack travel mm : 0.40 Tolerance mm : + 0.10 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : > 220 Check Speed 1/min : > 80 Tolerance mm : + 0.20 Del. quantity cm3/1000s. : + 8.0 Tolerance cm3/1000s strokes : 52.0 Tolerance cm3/1000s. : + 3.0 Tolerance 1/min : + 5 Tolerance cm3/1000s strokes : 88.0 Tolerance cm3/1000s T	Rated speed rpm	: 1300 _	
Rated speed rpm : 575 rack travel mm : 12.25 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : + 0.10 MEASUREMENT Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.05 Rated speed rpm : 500 Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 225 rack travel mm : 0.40 Tolerance mm : + 0.10 Pressure hPa : 225 Rated speed rpm : 500 STARTING FUEL DELIVERY Pressure hPa : 170 rack travel mm : 0.40 Tolerance mm : + 0.10 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : > 220 Check Speed 1/min : > 80 Tolerance mm : + 0.20 Del. quantity cm3/1000s. : + 8.0 Tolerance cm3/1000s strokes : 52.0 Tolerance cm3/1000s. : + 3.0 Tolerance 1/min : + 5 Tolerance cm3/1000s strokes : 88.0 Tolerance cm3/1000s T	rack travel mm	: 12.25	
Rated speed rpm : 575 rack travel mm : 12.25 Tolerance mm : + 0.10 ANEROID/ALITIUDE COMPENSATOR TEST SETTING Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 12.25 Tolerance mm : + 0.10 MEASUREMENT Pressure hPa : 200 Tolerance mm : + 0.05 Rated speed rpm : 500 Pressure hPa : 0.05 Rated speed rpm : 500 STARTING FUEL DELIVERY Pressure hPa : 1.40 Tolerance mm : + 0.10 Pressure hPa : 0.10 Rated speed rpm : 0.40 Tolerance mm : + 0.10 START CUT-OUT Rated speed rpm : > 80 Check Speed 1/min : > 80 Check Speed 1/min : > 80 Tolerance mm : + 0.20 Del. quantity Cm3/1000s. : + 3.0 Aneroid pressure Rated speed rpm : 500 Del. quantity Cm3/1000s. : + 3.0 FRATE SPEED	Tolerance mm	: +- 0.05	
Aneroid pressure hPa : - Rated speed rpm : 500 SETTING Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 700 Rated speed rpm : 400 Rated speed rpm : 500 Pressure hPa : - Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 STARTING FUEL DELIVERY Pressure hPa : 225 Pressure hPa : 170 Rated speed rpm : 0.40 Tolerance mm : + 0.10 Pressure hPa : 170 Rated speed rpm : 0.40 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : 5.0 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : 300 Rated speed rpm : 5.0 Check tolerance cm3/1000s: + 8.0 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : 300 Rated speed rpm : 300 Rated speed rpm : 300 Rated speed rpm : 6.80 Tolerance mm : + 0.20 Del. quantity Check tolerance cm3/1000s: + 8.0	5	F3F	
Aneroid pressure hPa : - Rated speed rpm : 500 SETTING Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 700 Rated speed rpm : 400 Rated speed rpm : 500 Pressure hPa : - Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 STARTING FUEL DELIVERY Pressure hPa : 225 Pressure hPa : 170 Rated speed rpm : 0.40 Tolerance mm : + 0.10 Pressure hPa : 170 Rated speed rpm : 0.40 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : 5.0 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : 300 Rated speed rpm : 5.0 Check tolerance cm3/1000s: + 8.0 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : 300 Rated speed rpm : 300 Rated speed rpm : 300 Rated speed rpm : 6.80 Tolerance mm : + 0.20 Del. quantity Check tolerance cm3/1000s: + 8.0	Rated speed rpm	: 5/5	+ Check tolerance
Aneroid pressure hPa : - Rated speed rpm : 500 SETTING Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 700 Rated speed rpm : 400 Rated speed rpm : 500 Pressure hPa : - Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 Rated speed rpm : 500 STARTING FUEL DELIVERY Pressure hPa : 225 Pressure hPa : 170 Rated speed rpm : 0.40 Tolerance mm : + 0.10 Pressure hPa : 170 Rated speed rpm : 0.40 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : 5.0 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : 300 Rated speed rpm : 5.0 Check tolerance cm3/1000s: + 8.0 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : 300 Rated speed rpm : 300 Rated speed rpm : 300 Rated speed rpm : 6.80 Tolerance mm : + 0.20 Del. quantity Check tolerance cm3/1000s: + 8.0	rack travel mm	12.25	+ cm3/1uuus. : 7.0
## ANEROID/ALTITUDE COMPENSATOR TEST ## Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 52.0 ## Tolerance cm3/1000 strokes : + 1.0 ## Check tolerance cm3/1000s. : + 3.0 ## BREAKAMAY ## BREAKAMAY ## MEASUREMENT ## Pressure hPa :	loterance mm	: +- 0.10	Associal management
Rated speed rpm : 500			
Del. quantity cm3/1000 strokes : 52.0 Tolerance cm3/1000 strokes : 52.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Pressure hPa : 700 Pressure hPa : 700 Pressure hPa : 12.25 Pressure hPa : + 0.10 Pressure hPa : + 0.10 Pressure hPa : + 0.05 Pressure hPa : + 0.05 Pressure hPa : + 0.05 Pressure hPa : 225 Pressure hPa : 225 Pressure hPa : 1.40 Pressure hPa : 1.40 Pressure hPa : 1.40 Pressure hPa : 1.40 Pressure hPa : 1.40 Pressure hPa : 1.70 Pressure hPa : 1.40 Pressure hPa : 1.	ANEDOTO / AL TITLINE		
Cm3/1000 strokes : 52.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Check tolerance cm3/1000s. : + 3.0 Check tolerance cm3/1000s. : + 3.0 Check tolerance cm3/1000s. : + 3.0 Check tolerance cm3/1000s. : + 3.0 Check tolerance cm3/1000s. : + 3.0 Check tolerance cm3/1000s. : + 3.0 Check tolerance cm3/1000s. : + 3.0 Check tolerance cm3/1000s. : + 3.0 Check tolerance cm3/1000s. : + 3.0 Check tolerance cm3/1000s. : + 5 Check tolerance cm3/1000s. : + 5 Check tolerance cm3/1000s. Check tolerance cm3			
Tolerance	COMPENSATOR TEST		
Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 12.25 Tolerance mm : + 0.10 MEASUREMENT Pressure hPa : 500 Pressure hPa :			
Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 12.25 Tolerance mm : + 0.10 MEASUREMENT Pressure hPa : 700 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 0.40 Tolerance mm : + 0.10 Pressure hPa : 170 rack travel mm : 0.40 Tolerance mm : + 0.10 Pressure hPa : 170 Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 8.0 START CUT-OUT Rated speed rpm : 300 Rated speed rpm : 300 Rated speed rpm : 6.80 Tolerance mm : + 0.20 Del. quantity cm3/1000s. : + 8.0	SETTING		
Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 12.25 Tolerance mm : + 0.10 MEASUREMENT Pressure hPa : 700 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 700 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 1.40 Tolerance mm : + 0.10 Pressure hPa : 1.40 Tolerance mm : - 0.10 Pressure hPa : 1.40 Tolerance mm : + 0.10 Pressure hPa : 1.40 Tolerance mm : + 0.10 Pressure hPa : 1.40 Tolerance mm : - 0.40 Tolerance mm : - 0.40 Tolerance mm : - 0.40 Tolerance mm : + 0.10 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : 300 rack travel mm : 6.80 Tolerance mm : - 0.20 Del. quantity Rated speed rpm : 300 rack travel mm : 6.80 Tolerance mm : - 0.20 Del. quantity	021111IG		
Pressure hPa : 700 rack travel mm : 12.25 Tolerance mm : + 0.10 MEASUREMENT Pressure hPa : - Rack travel in mm : 11.20 Rated speed rpm : 500 Rated speed rpm : 500 Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 170 rack travel mm : 0.40 Tolerance mm : + 0.10 Pressure hPa : 170 rack travel mm : 0.40 Tolerance mm : + 0.10 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 8.0 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : 300 rack travel mm : 6.80 Tolerance mm : + 0.20 Del. quantity	Rated speed rom	: 500	
Tolerance mm	Pressure hPa	700	1
MEASUREMENT Rack travel in mm : 11.20	rack travel mm	: 12.25	
MEASUREMENT Rack travel in mm : 11.20 Pressure hPa : 700 Rated speed rpm : 1345 Rated speed rpm : 500 Tolerance 1/min : + 5 Rated speed rpm : 500 STARTING FUEL DELIVERY Pressure hPa : 225 rack travel mm : 1.40 Rated speed rpm : 100 pel. quantity cm3/1000 strokes : 88.0 Pressure hPa : 170 rack travel mm : 0.40 Tolerance cm3/1000 strokes : + 5.0 check tolerance cm3/1000s. : + 8.0 START CUT-OUT Rated speed rpm : > 100 rack travel mm : < 220	Tolerance mm	: + 0.10	BREAKAWAY
Rack travel in mm : 11.20 Rated speed rpm : 1345			1
Rated speed rpm : 1345 Tolerance 1/min : + 5	MEASUREMENT		+
Rated speed rpm : *00 Tolerance mm : + 0.05 Rated speed rpm : 500 Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 170 rack travel mm : 0.40 Tolerance mm : + 0.10 Pressure hPa : 170 rack travel mm : 0.40 Tolerance mm : + 0.10 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : 300 rack travel mm : 6.80 Tolerance mm : + 0.20 Del. quantity			+ Rack travel in mm : 11.20
Tolerance mm : + 0.05 Rated speed rpm : 500 Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 170 rack travel mm : 0.40 Tolerance mm : + 0.10 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 88.0 Tolerance rack travel mm : 0.40 Tolerance rmm : + 0.10 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : > 220 Check speed 1/min : > 80	Pressure hPa		
Rated speed rom : 500 Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 170 rack travel mm : 0.40 Tolerance mm : + 0.10 Tolerance mm : + 0.10 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : 300 rack travel mm : 6.80 Tolerance mm : + 0.20 Del. quantity			† Tolerance 1/min : + 5
STARTING FUEL DELIVERY Pressure hPa	Tolerance mm	: +- 0.05	+
STARTING FUEL DELIVERY Pressure hPa			†
Pressure hPa : 225 rack travel mm : 1.40 Tolerance mm : + 0.10 Pressure hPa : 170 rack travel mm : 0.40 Tolerance mm : + 0.10 Pressure hPa : 170 rack travel mm : 0.40 Tolerance mm : + 0.10 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : > 100 Rated speed rpm : > 220 Check speed 1/min : > 80 Check speed 1/min : > 80 Tolerance mm : + 0.20 Del. quantity	Rated speed rom	: 500	OTANTALO PUEL DEL TUENY
Rated speed rpm : 1.40	B	- 225	+ STARTING FUEL DELIVERY
Tolerance mm : + 0.10 Pressure hPa : 170 rack travel mm : 0.40 Tolerance mm : + 0.10 Tolerance mm : + 0.10 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : > 220 Check speed 1/min : > 80 Check speed 1/min : < 250 Del. quantity cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 8.0 LOW IDLE Rated speed rpm : 300 rack travel mm : 6.80 Tolerance mm : + 0.20 Del. quantity			Detect energy and a
Pressure hPa : 170			
Tolerance rack travel mm : 0.40	roterance mm	: 0.10	
Tolerance mm : 0.40 Tolerance mm : + 0.10 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : < 220 Check speed 1/min : > 80 Check speed 1/min : < 250 Check speed 1/min : < 250 Cm3/1000 strokes : + 5.0 Check tolerance cm3/1000 strokes : + 5.0 Check tolerance Check tolerance Check speed rpm : 3.00 Rated speed rpm : 300 rack travel mm : 6.80 Tolerance mm : + 0.20 Del. quantity	Decering has	• 170	
Tolerance mm : + 0.10 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : < 220 Check speed 1/min : > 80 Check tolerance cm3/1000s. : + 8.0 LOW IDLE Rated speed rpm : 300 rack travel mm : 6.80 Check speed 1/min : < 250 Speed 1/min : < 250 Check speed rpm : 300 rack travel mm : 6.80 Tolerance mm : + 0.20 Del. quantity			
Cm3/1000s. : + 8.0 START CUT-OUT			
START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : < 220 Check speed 1/min : > 80 Check speed 1/min : < 250 Rated speed rpm : 300 rack travel mm : 6.80 Tolerance mm : + 0.20 speed 1/min : < 250 Del. quantity	IOCETATICE INIT	0.10	
Rated speed rpm : > 100 Rated speed rpm : < 220 Check speed 1/min : > 80 Check speed 1/min : < 250 Rated speed rpm : 300 rack travel mm : 6.80 Tolerance mm : + 0.20 speed 1/min : < 250 Del. quantity	-		1
Rated speed rpm : > 100 Rated speed rpm : < 220 Check speed 1/min : > 80 Check speed 1/min : < 250 Rated speed rpm : 300 rack travel mm : 6.80 Tolerance mm : + 0.20 speed 1/min : < 250 Del. quantity	START CUT-OUT		<u> </u>
Rated speed rpm : < 220	5.7mm		1
Rated speed rpm : < 220	Rated speed rom	: > 100	
Check			+ LOW IDLE
speed 1/min : > 80 + rack travel mm : 6.80 Check + Tolerance mm : + 0.20 speed 1/min : < 250	maran alaara ilan		+
speed 1/min : > 80 + rack travel mm : 6.80 Check + Tolerance mm : + 0.20 speed 1/min : < 250	Check		+ Rated speed rpm : 300
Check + Tolerance mm : + 0.20 speed 1/min : < 250 + Del. quantity		: > 80	+ rack travel mm : 6.80
speed 1/min : < 250 + Del. quantity			+ Tolerance mm : + 0.20
± cm3/1000 strokes · 11 0		: < 250	† Del. quantity
(0.1107 1000 321 0.120 1 1 1 1 1 1			+ cm3/1000 strokes : 11.0

Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 22.08.95 Edition Test oil : ISO 4113

Combination No. : 0 403 474 019

Injection pump

Pump designation : PES4MW100/720RS1151 EP type number : 0 413 404 104

Governor

Governer design. : RSV350...1200MW0A346

: -3

: 0 420 085 179 Governer no.

Cust. part No. :

Customer-spec. information : MB-NFZ Customer : OM 364 A Motor Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0 x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: Tolerance bar : +-1.0

Prestroke mm 3.75 Tolerance mm : + 0.05Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

: 0-90-180-270 Phasing : + 0.50Tolerance

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1200

11.55 Rack travel in mm: Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 88.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +-3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s.	: 6.0	İ	tolerance degree	: +- 4.0
		Ŧ	RATED SPEED	
Rated speed rpm	. 550	T	rack travel mm	: 1.00
Rack travel in mm	1: 6.40	Ι	Tolerance mm	: +- 0.70
Tolerance mm	: + 0.40	Ι	Rated speed rpm	
Del. quantity	0.40	I	Marea speed I pill	• 1450
cm3/1000 strokes	: 12.0	1	rack travel mm	: 4.00
Tolerance		1	Rated speed rpm	
cm3/1000 strokes	: +- 2.0	1	тата арган тр	,,,,,
Check tolerance		1	rack travel mm	: 10.50
cm3/1000s.	: +- 4.5	+	Rated speed rpm	: 1248
Spreed		+	Tolerance 1/min	: +- 8
Tolerance		+		
cm3/1000 strokes	: 3.5	+	ASSEMBLY GOVERNOR	SETTING
Check tolerance	·	+		
cm3/1000s.	: 5.5	+	Rated speed rpm	
		+	rack travel mm	: 10.50
(D) CETTING OF TH	HECTION DUMP	†	Mahad awaad as-	. 4290
(B) SETTING OF IN	MECITON POMP	†	Rated speed rpm Tolerance 1/min	: 1289 : +- 4
WITH GOVERNOR		T	rack travel mm	: 4.00
		I	rack cravet min	. 4.00
		I	Rated speed rpm	: 1241
GUIDE SLEEVE POST	TTON	1	rack travel mm	
		1		
Rated speed rpm	: 800	1	Rated speed rpm	: 1290
,		+	Tolerance 1/min	: +- 4
Rack travel in mm		+	rack travel mm	: 4.00
Tolerance mm	: +- 0.35	+		
		+	Rated speed rpm	
governor spring		+	rack travel mm	: 10.50
pre-tension	F	†		4004
click setting x	: 5.75	†	Rated speed rpm	: 1291
		†	Tolerance 1/min	: + 4
FULL LOSS SELTUED	Y AT FULL LOAD STOP	†	rack travel mm	: 4.00
FULL FOND DELIVER	T AT FULL LUAD STOP	Ι	Rated speed rpm	: 1243
Rated speed rpm	: 1200	I	rack travel mm	: 10.50
Aneroid pressure	. 1200	1	THE CHAVEE MEN	. 10.50
hPa	: 700	1	Rated speed rpm	: 1292
Del. quantity		4	Tolerance 1/min	: +- 4
cm3/1000 strokes	: 88.0	+	rack travel mm	: 4.00
Tolerance		+		
cm3/1000 strokes	: +- 1.0	+	Rated speed rpm	: 1244
Check tolerance		+	rack travel mm	: 10.50
cm3/1000s.	: ← 3.0	+		=
Spreed		+	Rated speed rpm	: 1293
Tolerance	7 F	+	Tolerance 1/min	: + 4
cm3/1000 strokes	: 3.5	†	rack travel mm	: 4.00
Check tolerance		†	Dotod opend me	. 12/5
cm3/1000s.	: 6.0	Ť	Rated speed rpm rack travel mm	: 1245
		I	TAUK LITAVEL IIM	: 10.50
		I	Rated speed rpm	: 1294
CONTROL LEVER		I	Tolerance 1/min	: +- 4
CONTINUE ELACIV		1	rack travel mm	4.00
control lever		+		
position degree	: 108.0	+		
_		-		

LOW IDLE	
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 6.40 : ← 0.40
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1200 : 11.55 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 600 : 12.40 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 12.00 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	······································
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 12.40 : + 0.10
MEASUREMENT	
Pressure hPa Rated speed rpm Tolerance mm	: - : 500 : + 0.05
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 375 : 1.70 : + 0.10
	: 200

FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure	
hPa	: 700
Rated speed rpm	: 600
Del. quantity	07.6
cm3/1000 strokes	: 87.0
Tolerance	
cm3/1000 strokes	: + 1.5
Check tolerance	
cm3/1000s. Spreed	: +- 4.0
Tolerance	
cm3/1000 strokes	: 5.0
Check tolerance	. 5.6
cm3/1000s.	: 7.0
· · · · · · · · · · · · · · · · · · ·	
Aneroid pressure	
hPa	:
Rated speed rpm	: 500
Del. quantity	
cm3/1000 strokes	: 48.0
Tolerance	
cm3/1000 strokes	: ← 1.0
Check tolerance	7.0
cm3/1000s.	: + 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm	
Rated speed rpm Del. quantity	: 100
Rated speed rpm Del. quantity cm3/1000 strokes	: 100
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 100 : 80.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 100
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 100 : 80.0 : + 5.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 100 : 80.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 80.0 : + 5.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 100 : 80.0 : + 5.0 : + 8.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 80.0 : + 5.0 : + 8.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000S.	: 100 : 80.0 : + 5.0 : + 8.0 : 350 : 6.40
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm	: 100 : 80.0 : + 5.0 : + 8.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 100 : 80.0 : + 5.0 : + 8.0 : 350 : 6.40 : + 0.40
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 100 : 80.0 : + 5.0 : + 8.0 : 350 : 6.40
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: 100 : 80.0 : + 5.0 : + 8.0 : 4.0 : 6.40 : + 0.40 : 12.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 100 : 80.0 : + 5.0 : + 8.0 : 350 : 6.40 : + 0.40
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 100 : 80.0 : + 5.0 : + 8.0 : 4.0 : 6.40 : + 0.40 : 12.0 : + 2.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 80.0 : + 5.0 : + 8.0 : 4.0 : 6.40 : + 0.40 : 12.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 100 : 80.0 : + 5.0 : + 8.0 : 4.0 : 6.40 : + 0.40 : 12.0 : + 2.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 80.0 : + 5.0 : + 8.0 : 4.0 : 6.40 : + 0.40 : 12.0 : + 2.0

Check tolerance cm3/1000s.	:	5.5	

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... Edition : 12.09.95 : ISO 4113 Test oil Combination No. : 0 400 864 088 Injection pump Pump designation : PES4A85D410/3RS2799 EP type number : 0 410 884 944 Governor Governer design. : RSV325...1250A2C2253 : -2L : 0 420 232 556 Governer no. Cust. part No. : Customer-spec. information : KHD Customer : BF4L913 Motor : 78.0 Power KW TEST BENCH REQUIREMENTS Inlet line : 1.3 Test oil inlet temp. °C Tolerance *C : +- 2.0 Overflow valve : 1 419 992 198 Inlet press. bar : 1.5 Test nozzle holde : 0 681 343 009 assembly

: 173.5 : ← 1.5

: 1 680 750 014

6.0

REMARKS	
(A) INJECTION PUM Set equal deliver per values	
BEGINNING OF DELI	VERY
Test pressure bar Tolerance bar	: 26.0 : + 1.0
Prestroke mm Tolerance mm Check	: 2.50 : + 0.05
tolerance mm	: ÷ 0.10
Rack travel in mm Tolerance mm	: 10.50 : ← 1.50
Firing order	: 1-3-4-2
Phasing	: 0-90-180-270
BASIC SETTING	
Rated speed rpm	: 1250
Rack travel in mm Tolerance mm	: 11.75 : + 0.05
Del. quantity cm3/1000 strokes	: 84.5
Folerance cm3/1000 strokes	: + 0.5
Check tolerance cm3/1000s.	: +- 2.5
Spreed Tolerance cm3/1000 strokes	: 3.0
Check tolerance cm3/1000S.	: 7.0
Rated speed rpm	: 325

x inside diameter:

x length mm :

2.0

600

Opening pressure

Tolerance bar

Test lines

Outside diameter :

Rack travel in mm	. 770	rack t Rated
	: + 0.10 I	Tolera
Del. quantity	, as a	
cm3/1000 strokes Tolerance	: 15.0	rack t Rated
cm3/1000 strokes	: +- 2.0 +	Tolera
Check tolerance cm3/1000S.	: + 4.0	rack t
Spreed	1	Tolera
Tolerance	: 4.5	Rated
cm3/1000 strokes Check tolerance	: 4.3	rack t
cm3/1000s.	: 7.0	Rated
	Ĭ	
(B) SETTING OF INJ	ECTION PUMP	
WITH GOVERNOR	1	LOW ID
	Ţ	
CUITAGE OF ERUS DOOTT		contro
GUIDE SLEEVE POSIT	100	positi tolera
Rated speed rpm	: 800 +	
Rack travel in mm	. 0.50 I	Settin
Tolerance mm	+ 0.20	Rated
dovomon chains	†	rack t
governor spring pre-tension	Į	Testir
click setting x	: 4.50	5
		Rated rack t
FULL LOAD DELIVERY	AT FULL LOAD STOP	Tolera
Rated speed rpm	: 1250 ‡	rack t
Aneroid pressure	+	Rated
hPa Del. quantity	: 1000	Tolera
cm3/1000 strokes	: 84.5 -	Rated
Tolerance	+	CDT
cm3/1000 strokes : Check tolerance	; - 0.5	CRT mm
cm3/1000s.	: +- 2.5	
Spreed Tolerance	<u> </u>	TORQUE
cm3/1000 strokes :	: 3.0	Rated
Check tolerance cm3/1000s.	7.0	rack t Tolera
(IID/ 1000).	7.0 I	rotera
	+	Rated
CONTROL LEVER	<u></u>	rack t Tolera
	+	
control lever position degree :	102.0	Rated rack t
tolerance degree :	+ '4.0	Tolera
	+	
RATED SPEED	<u> </u>	
	•	

rack travel mm Rated speed rpm Tolerance 1/min	: 10.70 : 1295 : +- 5
rack travel mm Rated speed rpm Tolerance 1/min	: 1375
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : +- 0.55 : 1525
rack travel mm Rated speed rpm	: 4.00 : 1415
LOW IDLE	
control lever position degree tolerance degree	: 73.0 : +- 4.0
Setting point w/o	ut bumper spring
Rated speed rpm rack travel mm	
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 325 : 7.70 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 580 : + 30
Rated speed rpm	: 100
CRT mm min.	: > 19.50
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1250 : 11.75 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 500 : 12.15 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 800 : 12.00 : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1000
rack travel mm : 12.15
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : - Rated speed rpm : 500 rack travel mm : 10.85 Tolerance mm : + 0.05

Rated speed rpm : 500

Pressure hPa : 230 rack travel mm : 11.50 Tolerance mm : + 0.10

Pressure hPa : 300 rack travel mm : 11.85 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 520 Rated speed rpm : 800

Del. quantity

cm3/1000 strokes : 81.0

Tolerance

cm3/1000 strokes : + 1.5

Check tolerance

cm3/1000s. : +- 3.5

Aneroid pressure

hPa : -Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 59.0

Tolerance

cm3/1000 strokes : + 1.5

Check tolerance

cm3/1000s. : +- 3.5

BREAKAWAY

Rack travel in mm: 10.70

Rated speed rpm : 1295
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.80 Tolerance mm : + 0.20 Del. quantity

cm3/1000 strokes : 125.0 Tolerance

cm3/1000 strokes : +- 7.5

Check tolerance cm3/1000s. : + 10.0

LOW IDLE

325 Rated speed rpm 7.70 rack travel mm 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. : +-4.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance 7.0 cm3/1000S.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.09.95 Edition : ISO 4113 Test oil

Combination No. : 0 400 866 080

Injection pump

Pump designation : PES6A85D410/3RS2415

EP type number : 0 410 886 915

Governor

Governer design. : RSV325...1400A8C809L

Governer no. : 0 420 232 610

Cust. part No. : 0423 1249 KY 0150

: -17

Customer-spec. information

: KHD Customer

: BF6L913 Motor Power KW : 118.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : + 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 : + 1.5 bar Tolerance bar

Test Lines : 1 680 750 014

Outside diameter :

x inside diameter : 2.0 x Length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 1.95 : + 0.05Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 10.85 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 76.5

Tolerance

cm3/1000 strokes : \leftarrow 0.5

Check tolerance cm3/1000s. : +- 2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance cm3/1000s.

		+	
Rated speed rpm :	325	rack travel mm	
		Rated speed rpm	
	8.00 - - 0.10 -	Tolerance 1/min	: ← 5
Tolerance mm : +- Del. quantity	• 0.10	rack travel mm	: 4.00
cm3/1000 strokes :	12.5	Rated speed rpm	
Tolerance	-	Tolerance 1/min	
	- 2.0 -	 	
Check tolerance	- 4.0	rack travel mm	: 0.85 : +- 0.55
cm3/1000s. : +- Spreed	• 4.0	Tolerance mm Rated speed rpm	
Tolerance	-	Added opeca i piii	. 1000
cm3/1000 strokes :	4.5	rack travel mm	
Check tolerance		Rated speed rpm	: 1520
cm3/1000s. :	7.0		
(B) SETTING OF INJECTI	ON PUMP -	LOW IDLE	
WITH GOVERNOR	-	-	
	-		
	-	control lever	. (0.0
GUIDE SLEEVE POSITION	_	position degree	: 68.0
GOIDE SEELVE FOSTITON	- -	Setting point w/o	out bumper spring
Rated speed rpm :	800 -		
		Rated speed rpm	
Rack travel in mm :		rack travel mm	: 7.50
Tolerance mm : +	0.20	Testing:	
governor spring	_	resting.	
pre-tension	4	- Rated speed rpm	: 325
click setting x :	5.25	rack travel mm	: 8.00
		Tolerance mm	: ← 0.10
FULL LOAD DELIVERY AT	FULL LOAD STOP	rack travel mm	: 2.00
TOLL LOAD DELIVERY AT	1022 20/10 0/01	- Rated speed rpm	
	1400	Tolerance 1/min	
Aneroid pressure	700		400
hPa :	700 -	- Rated speed rpm	: 100
Del. quantity cm3/1000 strokes :	76.5	- CRT mm min.	: > 19.50
Tolerance	-	-	
cm3/1000 strokes : +-	0.5		
Check tolerance cm3/1000s. : +-	3.5	- TORQUE CONTROL	
cm3/1000s. : +- Spreed	2.5	- Rated speed rpm	: 1400
Tolerance		rack travel mm	: 10.85
	3.0	- Tolerance mm	: ← 0.05
Check tolerance	+	-	500
cm3/1000s. :	7.0	- Rated speed rpm	: 500
		- rack travel mm - Tolerance mm	: 12.05 : +- 0.05
		- rocerative inti	• • •••
CONTROL LEVER	+	- Rated speed rpm	
	+	- rack travel mm	: 11.50
control lever	110 0	- Tolerance mm	: ← 0.10
position degree :	119.0	-	
RATED SPEED		-	
	•		

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 700
rack travel mm : 12.05
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 10.25
Tolerance mm : + 0.05

Rated speed rpm : 500

Pressure hPa : 95 rack travel mm : 10.70 Tolerance mm : + 0.10

Pressure hPa : 360 rack travel mm : 11.75 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

Rated speed rpm 500

Del. quantity

cm3/1000 strokes : 45.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : \leftarrow 2.5

BREAKAWAY

Rack travel in mm: 9.80
Rated speed rpm: 1445
Tolerance 1/min: + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.20 Tolerance mm : + 0.20

Del. quantity

cm3/1000 strokes : 110.0

Tolerance

cm3/1000 strokes : \leftarrow 7.5

Check tolerance

cm3/1000s. : +- 10.0

LOW IDLE

Rated speed rpm 325 rack travel mm 8.00 Tolerance mm : + 0.10Del. quantity cm3/1000 strokes : 12.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. : +--4.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance 7.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 08.09.95 Edition : ISO 4113 Test oil

Combination No. : 0 400 866 221

Injection pump

Pump designation : PES6A95D410/3RS2876

EP type number : 0 410 896 886

Governor

Governer design. : RSV325...900A7C720L

Governer no. : 0 420 232 339

Cust. part No. : 0 423 1366 KY0150

: -17

Customer-spec. information Customer : KHD

Motor : BF6L913C Power KW : 102.0

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

40 temp. °C Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : + 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0 x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm 2.65 : + 0.05Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

: + - 0.50Tolerance

Check

tolerance °NW : **←** 0.75

BASIC SETTING

900 Rated speed rpm :

Rack travel in mm : 13.10 Tolerance mm : + - 0.05

Del. quantity

cm3/1000 strokes : 92.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

3.0 cm3/1000s.

Spreed

Tolerance cm3/1000 strokes : 3.5	control lever position degree : 99.0
Check tolerance cm3/1000s. : 8.0	tolerance degree : + 4.0
Rated speed rpm : 325	RATED SPEED
Rack travel in mm : 6.80 Tolerance mm : + 0.10 Del. quantity	rack travel mm : 12.10 Rated speed rpm : 945 Tolerance 1/min : + 5
cm3/1000 strokes : 12.0 Tolerance	rack travel mm : 4.00 Rated speed rpm : 965
cm3/1000 strokes : +- 2.0 Check tolerance	Tolerance 1/min : + 15
cm3/1000s. : +- 4.5 Spreed	rack travel mm : 0.85 Tolerance mm : +- 0.55
Tolerance cm3/1000 strokes : 5.5	Rated speed rpm : 1100
Check tolerance cm3/1000S. 9.0	+ rack travel mm : 4.00 + Rated speed rpm : 985
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	t control lever t position degree : 66.0 tolerance degree : + 4.0
Rated speed rpm : 800	+
Rack travel in mm : 0.50 Tolerance mm : + 0.20	+ Setting point w/out bumper spring + Rated speed rpm : 325 + rack travel mm : 6.30
governor spring pre-tension	Testing:
click setting x : 4.00	Rated speed rpm : 325 rack travel mm : 6.80
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
Rated speed rpm : 900 Aneroid pressure hPa : - Del. quantity	rack travel mm : 2.00 Rated speed rpm : 400 Tolerance 1/min : + 30
cm3/1000 strokes : 92.0 Tolerance	TORQUE CONTROL
cm3/1000 strokes : +- 1.0 Check tolerance	Rated speed rpm : 900
cm3/1000s. : +- 3.0 Spreed	rack travel mm : 13.10 Tolerance mm : + 0.05
Tolerance cm3/1000 strokes : 3.5 Check tolerance	Rated speed rpm : 600 rack travel mm : 13.15
cm3/1000s. : 8.0	Tolerance mm : + 0.05
	-

CONTROL LEVER

BREAKAWAY

Rack travel in mm : 12.10
Rated speed rpm : 945
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 13.70 Tolerance mm : + 0.20

Del. quantity

cm3/1000 strokes : 105.0

Tolerance

cm3/1000 strokes : \leftarrow 7.5

Check tolerance

cm3/1000s. : + 10.0

LOW IDLE

325 Rated speed rpm 6.80 rack travel mm : : + 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance 5.5 cm3/1000 strokes : Check tolerance 9.0 cm3/1000s.

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... : 25,09,95 Edition : ISO 4113 Test oil Combination No. : 0 401 846 545 Injection pump Pump designation : PE6P110A320RS494-1 EP type number : 0 411 816 168 Governor Governer design. : RQV300...1200PA1184 Governer no. : 0 421 814 112 Cust. part No. : 11030926 P02 V.02/95 Customer-spec. information Customer : VME Motor : TD71K Power KW : 148.0 TEST BENCH REQUIREMENTS Inlet line : 3.1 Vibration damper (RoBo diaphragm) : 4.1 Test oil inlet temp. °C Tolerance °C : +- 2.0 Overflow valve : 1 457 413 010 Inlet press. bar : 1.5 : + - 0.1Tolerance bar Test nozzle holde : 0 681 343 009 assembly

173.5

: +- 1.5

Outside diameter : 8.0 x inside diameter: 3.0 600 x length mm REMARKS (A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____ BEGINNING OF DELIVERY Test pressure bar : Tolerance bar : + 1.0 3.05 Prestroke mm : **←** 0.05 Tolerance nm Check tolerance mm : + 0.10Rack travel in mm: 10.50 Tolerance mm : +- 0.50 : 1-5-3-6-2-Firing order : 0-60-120-180-240 Phasing : -300 Tolerance : + 0.30Check : + 0.75tolerance *NW Start of delivery mark Barrel no. BASIC SETTING Rated speed rpm : 700 Rack travel in mm: 11.80 : + 0.05Tolerance mm Del. quantity cm3/1000 strokes : 117.0

Test lines : 1 680 750 089

Opening pressure

Tolerance bar

Tolerance cm3/1000 strokes : +-	1.0	rance mm : +- 0.25 d speed rpm : 1490
Check tolerance cm3/1000s. : +-	3.0 + guid	e sleeve el mm : 11.50 rance mm : + 0.50
Spreed Tolerance	<u> </u>	
cm3/1000 strokes :	4.0 + GUIDI	E SLEEVE POSITION
Check tolerance cm3/1000s. :	7.5	d speed rpm : 1340 travel in mm : 10.00
		rance mm : +- 1.50
	2.0 FULL	LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s. : +-		d speed rpm : 700
Spreed Tolerance	+ hPa	oid pressure : 1500
Check tolerance	+ cm3/	quantity 1000 strokes : 117.0
cm3/1000s. :	+ cm3/	rance 1000 strokes : + 1.0
(B) SETTING OF INJECTION WITH GOVERNOR	PUMP + cm3/2 + Spree	
		rance 1000 strokes : 4.0
GUIDE SLEEVE TRAVEL		k tolerance 1000s. : 7.5
Rated speed rpm : 30 guide sleeve	+	
	12 1	מון ניינים
travel mm : 1 Tolerance mm : + 0		TOL LEVER
Tolerance mm : + 0 Rated speed rpm : 125	1.25 + CONTR	rol lever
Tolerance mm : + 0 Rated speed rpm : 125 guide sleeve	6 - contr - posit - toler	rol lever tion degree : 48.0 rance degree : + 4.0
Tolerance mm : + 0 Rated speed rpm : 125 guide sleeve travel mm : 8 Tolerance mm : + 0 Rated speed rpm : 90 guide sleeve	6 contr 5.57 toler 5.57 contr 5 posit	rol lever rion degree : 48.0 rance degree : + 4.0 rol lever rion degree : 107.0
Tolerance mm : + 0 Rated speed rpm : 125 guide sleeve travel mm : 8 Tolerance mm : + 0	CONTRACTOR CONTRACTOR	rol lever tion degree : 48.0 rance degree : +- 4.0
Tolerance mm : + 0 Rated speed rpm : 125 guide sleeve travel mm : 8 Tolerance mm : + 0 Rated speed rpm : 90 guide sleeve travel mm : 5 Tolerance mm : + 0 Rated speed rpm : 43	CONTR CONTR Contr posit toler contr co	rol lever rion degree : 48.0 rance degree : + 4.0 rol lever rion degree : 107.0 rance degree : + 4.0 respectively.
Tolerance mm : + 0 Rated speed rpm : 125 guide sleeve travel mm : 8 Tolerance mm : + 0 Rated speed rpm : 90 guide sleeve travel mm : 5 Tolerance mm : + 0 Rated speed rpm : 43 guide sleeve travel mm : 2	.25 CONTR contr posit .25 contr contr co	rol lever rion degree : 48.0 rance degree : + 4.0 rol lever rion degree : 107.0 rance degree : + 4.0
Tolerance mm : + 0 Rated speed rpm : 125 guide sleeve travel mm : 8 Tolerance mm : + 0 Rated speed rpm : 90 guide sleeve travel mm : 5 Tolerance mm : + 0 Rated speed rpm : 43 guide sleeve travel mm : 2 Tolerance mm : + 0 Rated speed rpm : 2 Rated speed rpm : 43 guide sleeve travel mm : 2 Tolerance mm : + 0	CONTRACTOR CONTRACTOR	rol lever rion degree : 48.0 rance degree : + 4.0 rol lever rion degree : 107.0 rance degree : + 4.0 rance degree : + 4.0 rance degree : + 4.0 rance degree : + 4.0 rance degree : + 4.0
Tolerance mm : + 0 Rated speed rpm : 125 guide sleeve travel mm : 8 Tolerance mm : + 0 Rated speed rpm : 90 guide sleeve travel mm : 5 Tolerance mm : + 0 Rated speed rpm : 43 guide sleeve travel mm : 2 Tolerance mm : + 0 Rated speed rpm : 43 guide sleeve travel mm : 2 Tolerance mm : + 0 Rated speed rpm : 48 guide sleeve travel mm : 22	CONTRACTOR CONTRACTOR	rol lever front degree : 48.0 rance degree : + 4.0 rol lever front degree : 107.0 rance degree : + 4.0 rance degree : + 4.0 rol lever front degree : 107.0 rance degree : + 4.0 rol lever front degree : 107.0 rance degree : + 4.0 rol speed mm : 10.80 rol speed mm : 1245 rance 1/min : + 5 rance 1/min : + 15 rance 1/min : + 15
Rated speed rpm : 125 guide sleeve travel mm : # 0 Rated speed rpm : 90 guide sleeve travel mm : 5 Tolerance mm : # 0 Rated speed rpm : 43 guide sleeve travel mm : 2 Tolerance mm : # 0 Rated speed rpm : 43 guide sleeve travel mm : 2 Tolerance mm : # 0 Rated speed rpm : 48 guide sleeve travel mm : 2 Tolerance mm : 2 Tolerance mm : 40	CONTRACTOR CONTRACTOR	rol lever rion degree : 48.0 rance degree : + 4.0 rol lever rion degree : 107.0 rance degree : + 4.0 SPEED travel mm : 10.80 d speed rpm : 1245 rance 1/min : + 5 travel mm : 4.00 d speed rpm : 1335

LOW IDLE

control lever
position degree : 72.0
tolerance degree : + 4.0

control lever

position degree : 13.0 tolerance degree : + 4.0

Testing:

Rated speed rpm : 300 rack travel mm : 5.20 Tolerance mm : + 0.20

Rated speed rpm : 200

CRT mm min. :> 6.70

Rated speed rpm : 360

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 11.80 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 11.80
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 9.60
Tolerance mm : + 0.10

Rated speed rpm : 500

Pressure hPa : 500 rack travel mm : 1.90 Tolerance mm : + 0.10

Pressure hPa : 200 rack travel mm : 0.25 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : - 700
Rated speed rpm : 700
Del. quantity

cm3/1000 strokes : 80.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mail: 10.30
Rated speed rpm : 1245
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity

cm3/1000 strokes : 175.0 Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

Del. quantity cm3/1000 strokes : 19.0 Tolerance

cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.0

Spreed Tolerance

cm3/1000 strokes : 3.0

Check tolerance cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 22.09.95 : ISO 4113

Combination No. : 0 401 846 865

Injection pump

Pump designation : PE6P120A320RS3202 EP type number : 0 411 826 769

Governor Governer design. : RQV300...1025PA657

: -23

Governer no.

: 0 421 813 669

Cust. part No. : 11031515

: -P04 v.12/88

Customer-spec. information

Customer

: VME

Motor

: TD122A 35

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

: + 2.0

Overflow valve : 1 457 413 010

Inlet press. bar :

1.5

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 019

Opening pressure

bar

208.5

Tolerance bar

1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter:

3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 3.65

: **←** 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 0.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : **←** 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 12.05

Tolerance mm : **←** 0.05

Del. quantity

cm3/1000 strokes :

209.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : + 4.0	RATED SPEED
Spreed Tolerance cm3/1000 strokes : 5.0	rack travel mm : 11.05 Rated speed rpm : 1085 Tolerance 1/min : + 5
Check tolerance cm3/1000s. : 9.0	rack travel mm : 4.00 Rated speed rpm : 1155 Tolerance 1/min : + 15
Del. quantity cm3/1000 strokes : 24.0 Tolerance cm3/1000 strokes : + 2.5 Check tolerance cm3/1000s. : + 5.0 Spreed	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1250
Tolerance cm3/1000 strokes : 5.0 check tolerance	LOW IDLE
cm3/1000S. : 7.0	control lever position degree : 67.0 tolerance degree : +- 4.0
WITH GOVERNOR	Testing:
 ‡	Rated speed rpm : 300 rack travel mm : 5.00
GUIDE SLEEVE POSITION	Tolerance mm : +- 0.20
Rated speed rpm : 1080	Rated speed rpm : 100
Rack travel in mm: 16.50 Tolerance mm: + 1.30	CRT mm min. :> 6.50 Rated speed rpm : 360
FILL LOAD DELTHERY AT FILL LOAD STOP	nated speed (piii . 300
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700	TORQUE CONTROL
Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 209.0	Rated speed rpm : 700 rack travel mm : 12.05 Tolerance mm : + 0.05
Tolerance + cm3/1000 strokes : + 1.0 + Check tolerance +	ANEROID/ALTITUDE COMPENSATOR TEST
cm3/1000s. : + 4.0 + 5preed	
Tolerance cm3/1000 strokes : 5.0	SETTING
Check tolerance cm3/1000s. : 9.0	Rated speed rpm : 500 Pressure hPa : 900 rack travel mm : 12.05 Tolerance mm : + 0.05
CONTROL LEVER	MEASUREMENT
control lever position degree : 119.0 tolerance degree : + 4.0	Pressure hPa : - Rated speed rpm : 500 rack travel mm : 11.60

: + 0.20 Tolerance mm Rated speed rpm 500 450 Pressure hPa 11.75 rack travel mm : +- 0.95 Tolerance mm FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 194.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 BREAKAWAY 11.05 Rack travel in mm: Rated speed rpm : 1085 Tolerance 1/min : +-STARTING FUEL DELIVERY 100 Rated speed rpm 20.50 rack travel mm : : +- 0.50Tolerance mm Del. quantity cm3/1000 strokes : 260.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : **←** 24.0 LOW IDLE Del. quantity cm3/1000 strokes : 24.0 Tolerance cm3/1000 strokes : +-2.5 Check tolerance

: +-

5.0

5.0

Check tolerance cm3/1000s. : 7.0

End of test specification sheet

Spreed Tolerance

cm3/1000s.

cm3/1000 strokes :